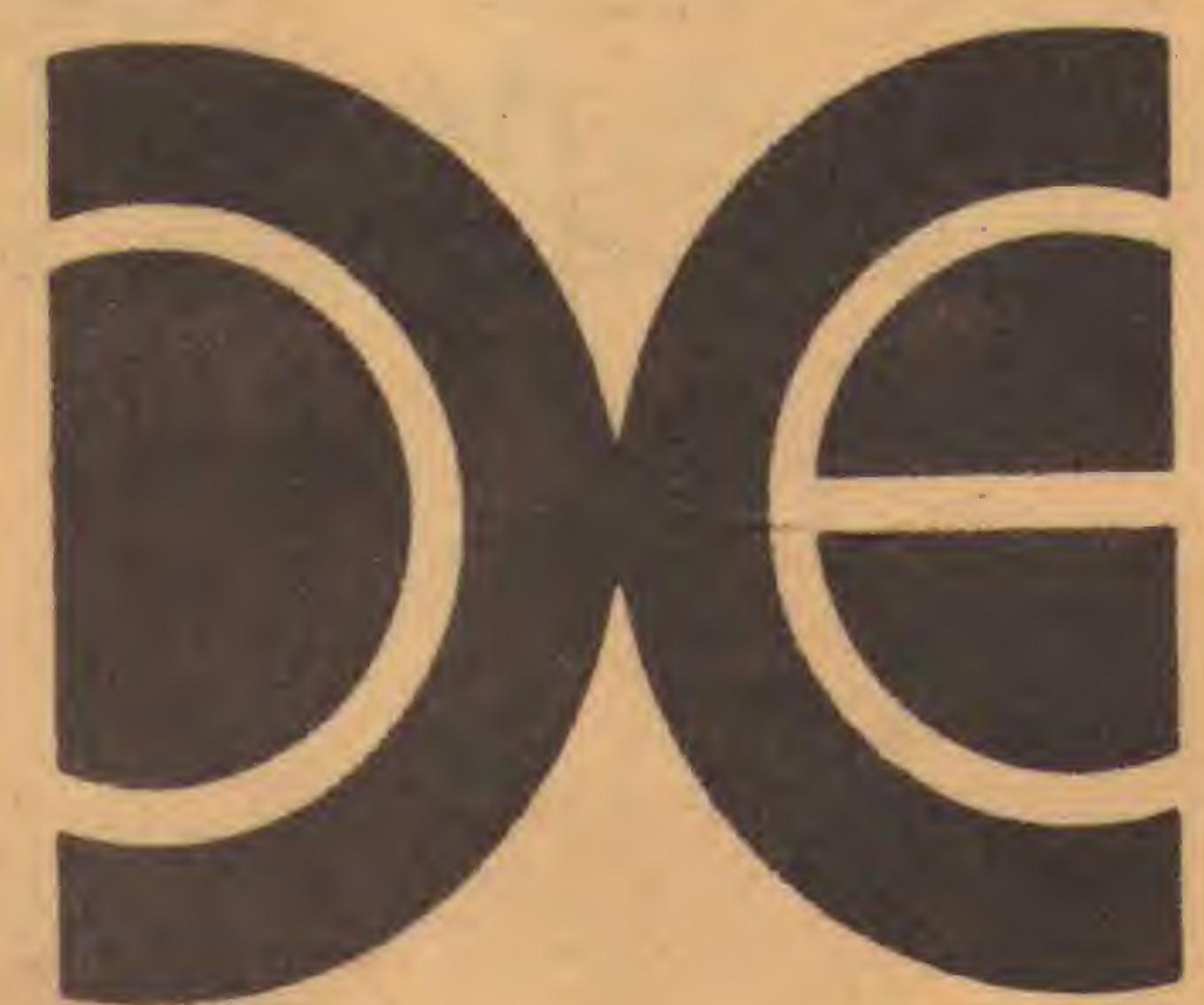


KUNG-FU MASTERTM



INSTALLATION INSTRUCTIONS



DATA EAST USA, INC.

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WARNING

This equipment generates and uses radio frequency energy and if not installed and used properly, i.e., in strict accordance with the instructions manual, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

CAUTION

EMI Shield must be securely installed in order to protect against undesirable radio interference.

K U N G - F U M A S T E R

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NOTE: Schematic set for ASAHI model 6352 power supply was
not available for inclusion in this manual at press time.
Refer any problems to the DATA EAST Service Department.

KUNG-FU MASTER™

G A M E P L A Y

1. You are a Kung-Fu Master. Your girlfriend has been kidnapped by criminals and locked up on the 5th floor of their headquarters. Get into their headquarters and save your girlfriend!
2. On your way up to the 5th floor, various criminals will block your way. Defeat the criminals by using your Kung-Fu techniques.
3. Masters at various martial arts appear at the end of each floor. You cannot go upstairs unless you defeat them. Remaining energy of the masters is indicated by the energy gauge.
4. Press "PUNCH" button to punch, press "KICK" button to kick.
5. Jiggle the joystick quickly to shake off enemy holds.
6. The game will be over if either your energy or your allotted time runs out.
7. At the end of the 4th floor, may wizards will appear. You must guess which one is the real wizard and defeat him.

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OPTION SWITCH SETTINGS

DIP SWITCH #1

OPTION	SWITCH	1	2	3	4	5	6	7	8
DIFFICULTY	EASY	OFF	ON						
	DIFFICULT	ON							
DECREASE OF ENERGY	SLOW	OFF							
	FAST		ON						
NUMBER OF FIGHTERS	2		ON	OFF					
	3		OFF	OFF					
	4		OFF	ON					
	5		ON	ON					
COIN SELECTION (SWITCH #3 of DIP SWITCH #2 MUST BE OFF)	1 COIN 1 PLAY								
	2 COINS 1 PLAY								
	3 COINS 1 PLAY								
	4 COINS 1 PLAY								
	5 COINS 1 PLAY								
	6 COINS 1 PLAY								
	1 COIN 2 PLAYS								
	1 COIN 3 PLAYS								
	1 COIN 4 PLAYS								
	1 COIN 5 PLAYS								
	1 COIN 6 PLAYS								
	FREE PLAY								

DIP SWITCH #2

OPTION	SWITCH	1	2	3	4	5	6	7	8
FLIP PICTURE?	NO	OFF	ON						
	YES	ON							
CABINET TYPE	COCKTAIL TABLE		OFF						
	UPRIGHT			ON					
* FREEZE PICTURE?	NO			OFF					
	YES				ON				
NO DEATH MODE?	NO			OFF					
	YES				ON				
TEST MODE?	NO			OFF					
	YES				ON				

NOTE: * PRESS 2-PLAYER START BUTTON TO FREEZE PICTURE. PRESS 1-PLAYER START BUTTON TO LET IT MOVE AGAIN.

POWER SUPPLY:

+5 volts dc at 5 A (max)
+12 volts dc at 1.5 A (max)

ENVIRONMENT:

Operating temperature range: 0 to 50°C

Relative Humidity: 20 to 70%

MONITOR INTERFACE:

Video Signals: TTL Positive

Sync Signals: TTL Negative (Composite Sync)

Horizontal Frequency: 16 KHz

Vertical Frequency: 56.3 Hz

CAUTION! PCB PIN NUMBERS DIFFER FROM EDGE CONNECTOR PIN NUMBERS

44 PIN EDGE CONNECTOR

SIGNAL ASSIGNMENTS

SIGNAL NAME	EDGE CONNECTOR PIN No.	SIGNAL NAME
GROUND (PCB PIN 1)	22	Z
GROUND (PCB PIN 3)	21	Y
	20	X
COIN COUNTER A	19	W
1 P LEFT (PCB PIN 9)	18	V
1 P RIGHT (PCB PIN 11)	17	U
1 P KICK (PCB PIN 13)	16	T
2 P START (PCB PIN 15)	15	S
	14	R
COIN B (PCB PIN 19)	13	P
+ 12 VOLTS (PCB PIN 21)	12	N
+ 12 VOLTS (PCB PIN 23)	11	M
SPEAKER (-) (PCB PIN 25)	10	L
1 P PUNCH (PCB PIN 27)	9	K
RED (PCB PIN 29)	8	J
BLUE (PCB PIN 31)	7	H
2 P UP (PCB PIN 33)	6	F
1 P UP (PCB PIN 35)	5	E
SERVICE SWITCH	4	D
+ 5 VOLTS (PCB PIN 39)	3	C
+ 5 VOLTS (PCB PIN 41)	2	B
GROUND (PCB PIN 43)	1	A
		GROUND (PCB PIN 44)

NOTE: 2 P controls for UP, DOWN, LEFT, RIGHT, KICK & PUNCH
are for Cocktail Table games only.

CAUTION!

PCB PIN NUMBERS DIFFER FROM
EDGE CONNECTOR NUMBERS

DIAGNOSTIC MODE TESTS

The diagnostic program is activated by turning switch 8 of Dip Switch 2 to the ON position and turning the power switch ON. This diagnostic program is composed of 8 independent tests, the first two (RAM test and ROM test) of which initiate automatically as the power switch is turned ON. After these two tests end, the TV monitor displays a list of the next six tests as described below:

- 01 DIP SWITCH
- 02 I-O PORT
- 03 SOUNDS
- 04 CHARACTER
- 05 COLOR
- 06 CROSS HATCH PATTERN

Move the joystick to position the cursor at the desired test and then press the 1-Player button to start the test.

To return to the test list:

Press the 2-Player button (except when 02 I-O PORT test ends). As the 02 I-O PORT test ends, move the joystick left (the 1-Player joystick for table type games) while pressing the 2-player button.

When all the necessary testing is completed, turn the power switch OFF and turn switch 8 of Dip Switch 2 to the OFF position.

1. RAM TEST

If RAM is OK, "RAM OK" appears on the TV monitor.

If RAM is faulty: "RAM NG XXXX YY ZZ"
(Faulty RAM address)(RAM input data)(RAM output data)
appears on the TV Monitor.

Press the 1-Player button to continue RAM TEST, or
Press the 2-Player button to end this test and advance to ROM TEST.

2. ROM TEST

If ROMs are OK the following appears on the TV Monitor:

RAM OK
ROM 0 OK
ROM 1 OK
ROM 2 OK
ROM 3 OK

If any of the ROMs are faulty, for instance ROM 1, the following appears on the TV Monitor:

RAM OK
ROM 0 OK
ROM 1 NG
ROM 2 OK
ROM 3 OK

3. DIP SWITCH TEST While the TV monitor displays the test list, control the joystick to position the cursor at 01 and press the 1-Player button.

This test shows the state of the switches of Dip Switch 1 and 2 and the results of game adjustments.

Dip Sw	1	2	3	4	5	6	7	8	
DSW 1	0	0	0	0	0	0	0	0	1=ON
DSW 2	0	0	0	0	0	0	0	1	0=OFF

COIN MODE A	1 COIN	1 PLAY
COIN MODE B	1 COIN	2 PLAYS

BODY TYPE	UPRIGHT
DIFFICULTY	EASY
DECREASE	SLOW
FIGHTERS	3

4. I-O PORT TEST When the TV Monitor displays the test list, control the joystick to position the cursor at 02 and pres the 1-Player button.

This test checks if all the switches on the Control Panel and Coin Doors are working correctly. The following display appears.

INTERFACE 1	1	2	3	4	5	6	7	8	
READ DATA	0	0	0	0	0	0	0	0	
INTERFACE 2	1	2	3	4	5	6	7	8	
READ DATA	0	0	0	0	0	0	0	0	
INTERFACE 3	1	2	3	4	5	6	7	8	1 = ON
READ DATA	0	0	0	0	0	0	0	0	0 = OFF

TIMING n n n n

* TIMING starts a 0000 and adds one count approximately every second.

INTERFACE 1-1	...	1-Player Start Button
1-2	...	2-Player Start Button
1-3	...	Service Switch
1-4	...	Coin Switch A
INTERFACE 2-1	...	1P Joystick RIGHT
2-2	...	1P Joystick LEFT
2-3	...	1P Joystick DOWN
2-4	...	1P Joystick UP
2-6	...	1P PUNCH button
2-8	...	1P KICK button
INTERFACE 3-1	...	2P Joystick RIGHT
3-2	...	2P Joystick LEFT
3-3	...	2P Joystick DOWN
3-4	...	2P Joystick UP
3-5	...	Coin Switch B
3-6	...	2P PUNCH button
3-8	...	2P KICK button

To terminate this test and bring the test list back to the TV monitor, move the joystick LEFT while depressing the 2-Player button.

5. SOUND TEST When the TV Monitor displays the test list, control the joystick to position the cursor at 03 and press the 1-Player button.

A table of sounds appears on the TV Monitor.

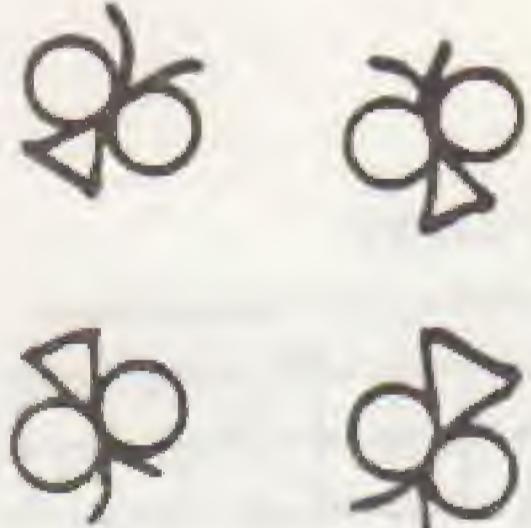
SOUNDS

- 01 YELL OF PLAYER (JUMP-KICKS)
CREDIT ADDING SOUND
- 02 YELL OF PLAYER (PUNCHES, KICKS)
- 03 GROAN OF PLAYER OR ENEMY
- 04 LAUGHING VOICE OF ENEMIES-1
- 05 LAUGHING VOICE OF ENEMIES-2
- 06 BURSTING OF PAPER BALL
BURSTING OF DRAGON'S EGG
- 07 SHRIEK OF PLAYER
- 08 PLAYER RUNNING
- 09 HITTING SOUND (PUNCHES, KICKS)
- 10 SWISHING SOUND
- 11 BURSTING OF SNAKE POT
- 12 BITING SOUND
- 13 SOUND OF KNIVES, BOOMERANGS
- 14 COUNTING POINTS
- 15 GAME START
- 16 BGM
- 17 COMPLETION OF EACH PATTERN
- 18 COMPLETION OF GAME
- 19 GAME OVER
- 20 TIME UP WARNING
- 21 ADDITIONAL FIGHTER
MUSIC END

Select a sound by positioning the cursor with the joystick. Depressing the 1-Player button repeats the sound.

6. CHARACTER TEST When the TV Monitor displays the test list, control the joystick to position the cursor at 04 and press the 1-Player button.

The TV Monitor displays four moths which are flipped vertically and horizontally as shown below.



Moving the joystick to the left will display 4 characters:

- 1. Kung-Fu Master
- 2. Knife Thrower
- 3. Man of Brute Force
- 4. Boss of Organization X

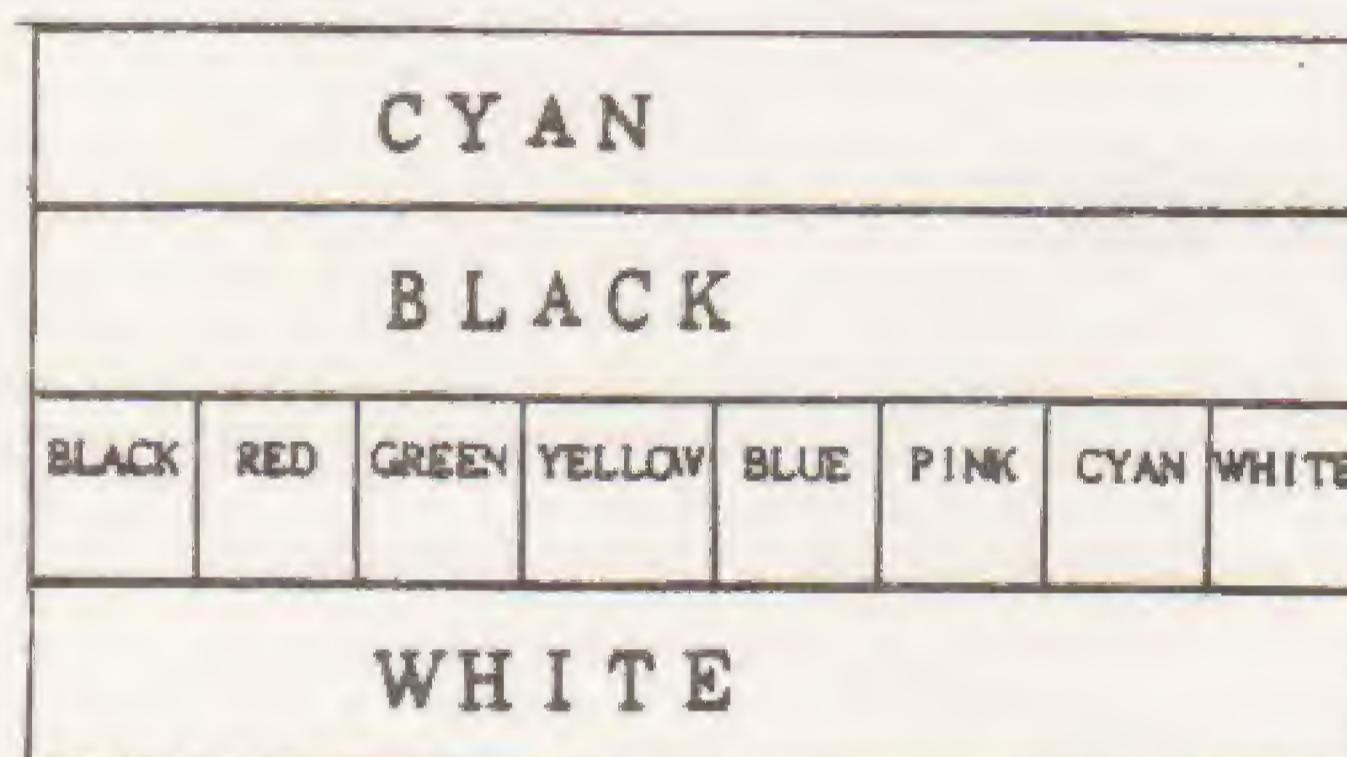
7. COLOR TEST While the TV Monitor displays the test list, control the Joystick to position the cursor at 05 and press the 1-Player button.

This test is comprised of five independent checks. Pressing the 1-Player button brings the check to the TV Monitor.

- (1) A row of letters A through Z appears along with a row of numbers 0 through 9 as shown below.

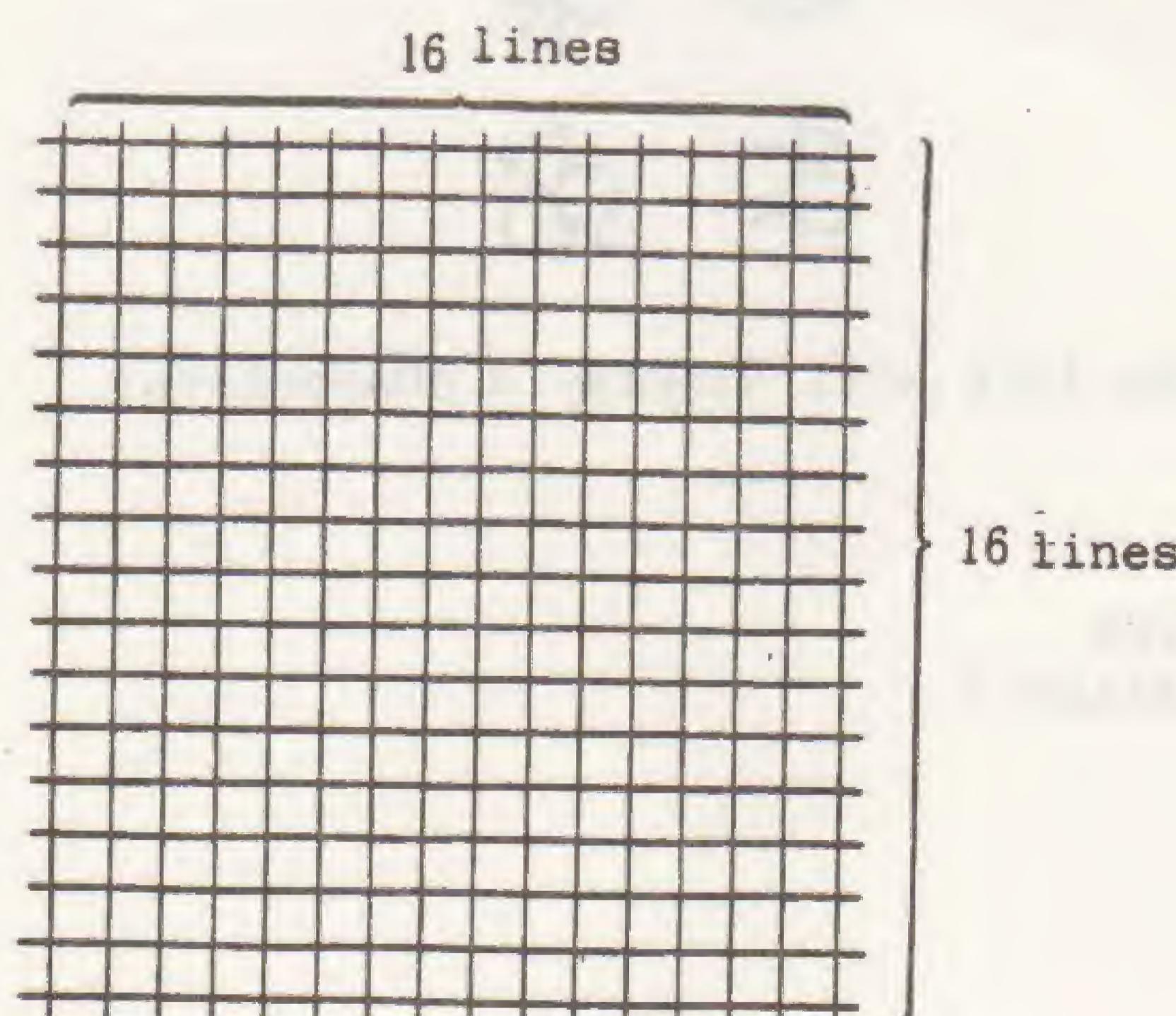
ABCDEFGHIJKLMNPQRSTUVWXYZ
0123456789

- (2) Press the 2-Player button and a BLUE FIELD is displayed.
(3) Press the 2-Player button and a RED FIELD is displayed.
(4) Press the 2-Player button and a GREEN FIELD is displayed.
(5) Press the 2-Player button and a color Test Pattern is displayed as shown below.



8. CROSS HATCH PATTERN TEST While the TV monitor displays the test list, control the joystick to position the cursor at 06 and press the 1-Player button.

A Cross Hatch Pattern is displayed as shown below.



START

KUNG-FU MASTER * DIAGNOSTIC FLOW CHART

SET SWITCH 8 OF DIP SWITCH 2
TO "ON"

TURN POWER SWITCH TO "ON"

RAM TEST
OK?

NO

FAULTY RAM
INDICATED ON
TV MONITOR

PUSH 1P BUTTON
TO CONTINUE
RAM TEST

IF RAM OK
APPEARS

YES

OR

PUSH 2P BUTTON TO
ADVANCE TO
ROM TEST

ROM TEST
OK?

NO

REPLACE FAULTY
ROM

YES

PUSH 2P BUTTON

TEST LIST
DISPLAYED ON
TV MONITOR

SELECT TEST BY
OPERATING JOYSTICK

PUSH 1P BUTTON
TO START TEST

01 DIP SWITCH
TEST

02 I-O PORT
TEST

03 SOUND
TEST

04 CHARACTER
TEST

05 COLOR
TEST

06 CROSS HATCH
PATTERN

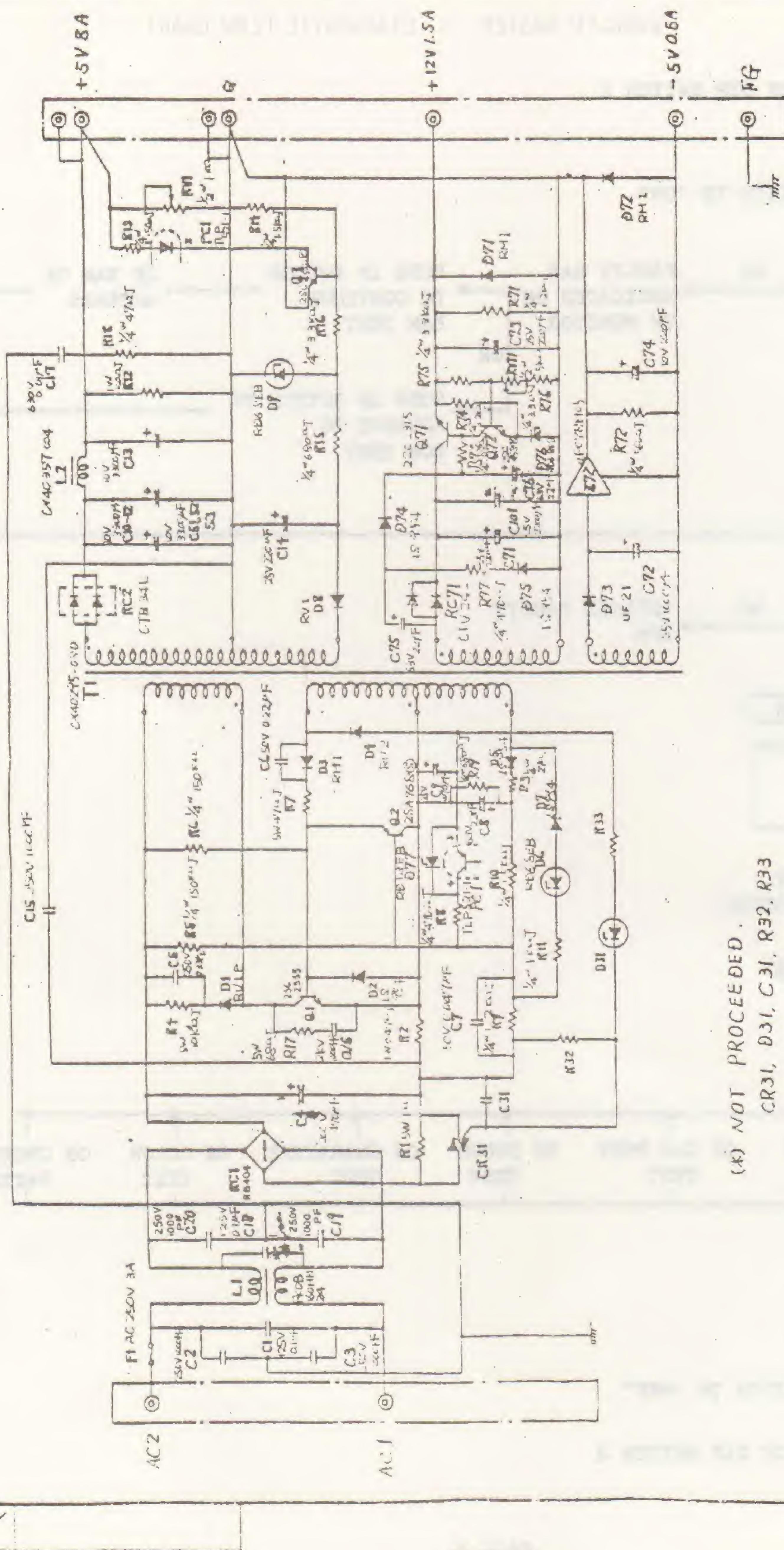
TEST ENDS?

NO

YES
TURN POWER SWITCH TO "OFF"

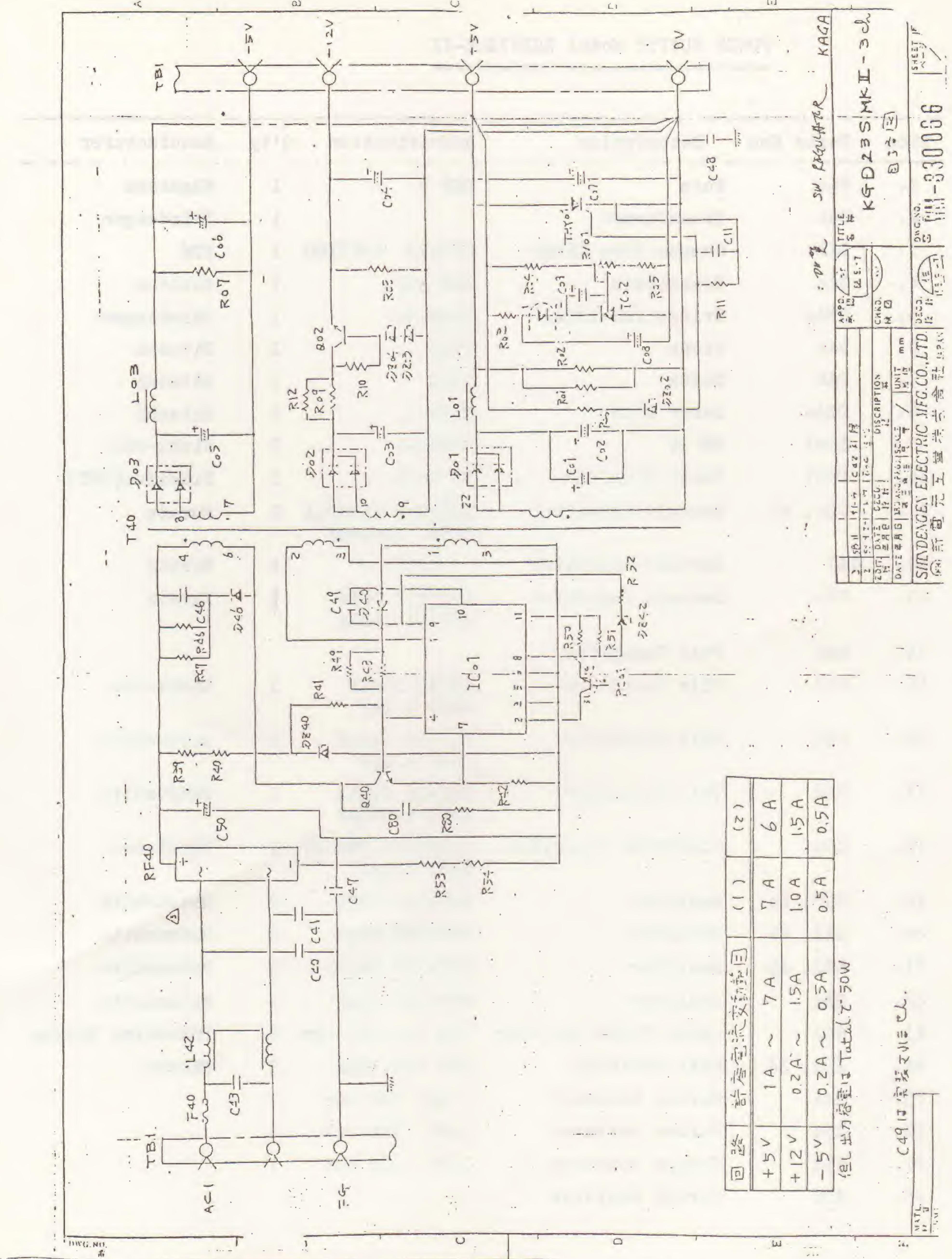
SET SWITCH 8 OF DIP SWITCH 2
TO "OFF"

FINISH



(*) NOT PROCCEED.
CR31, D31, C31, R32, R33

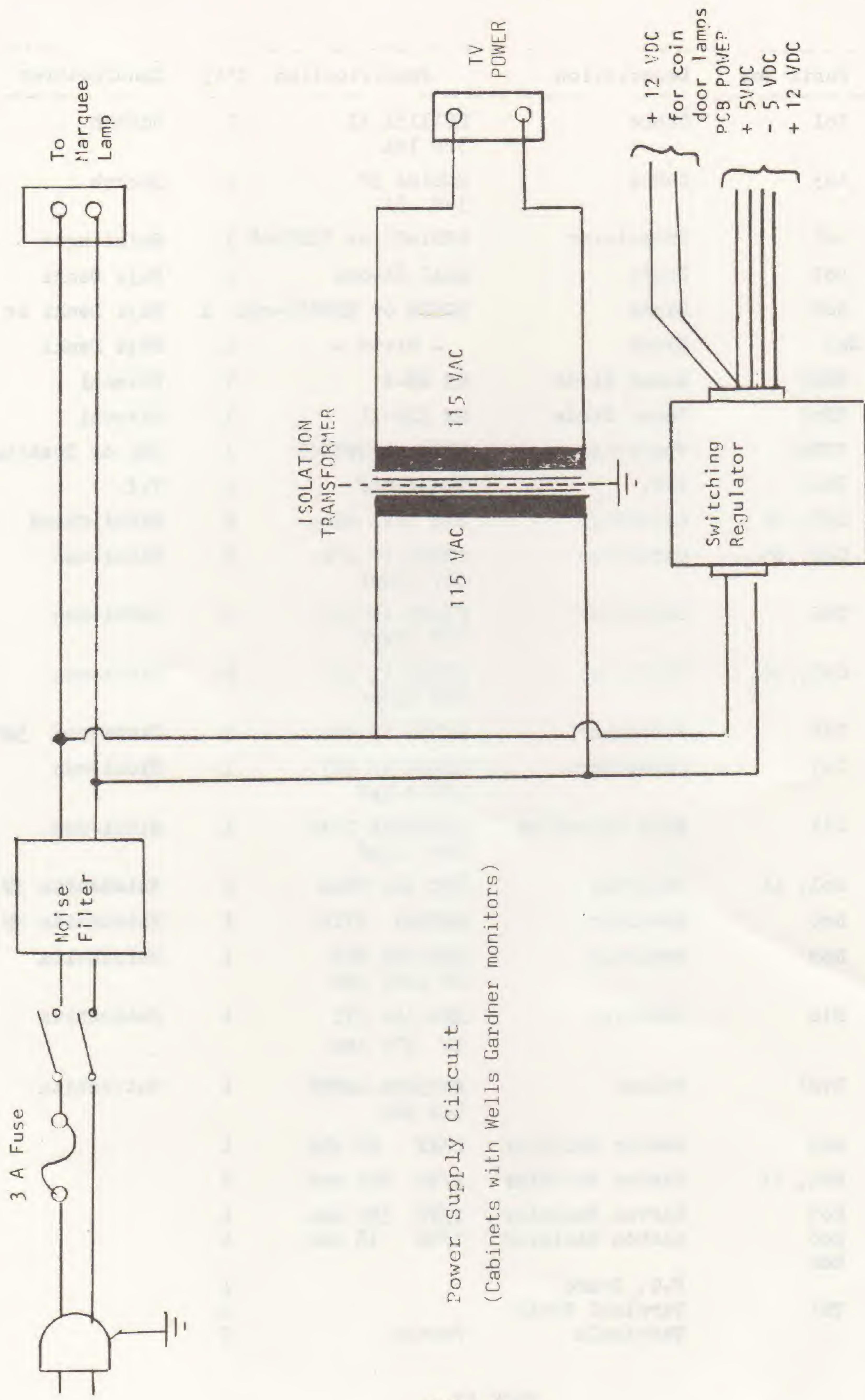
材质	处理	公差		单位	量具	圆面	公差
承压	拉伸	内凹	内凸	尺幅	/	K-10505	L

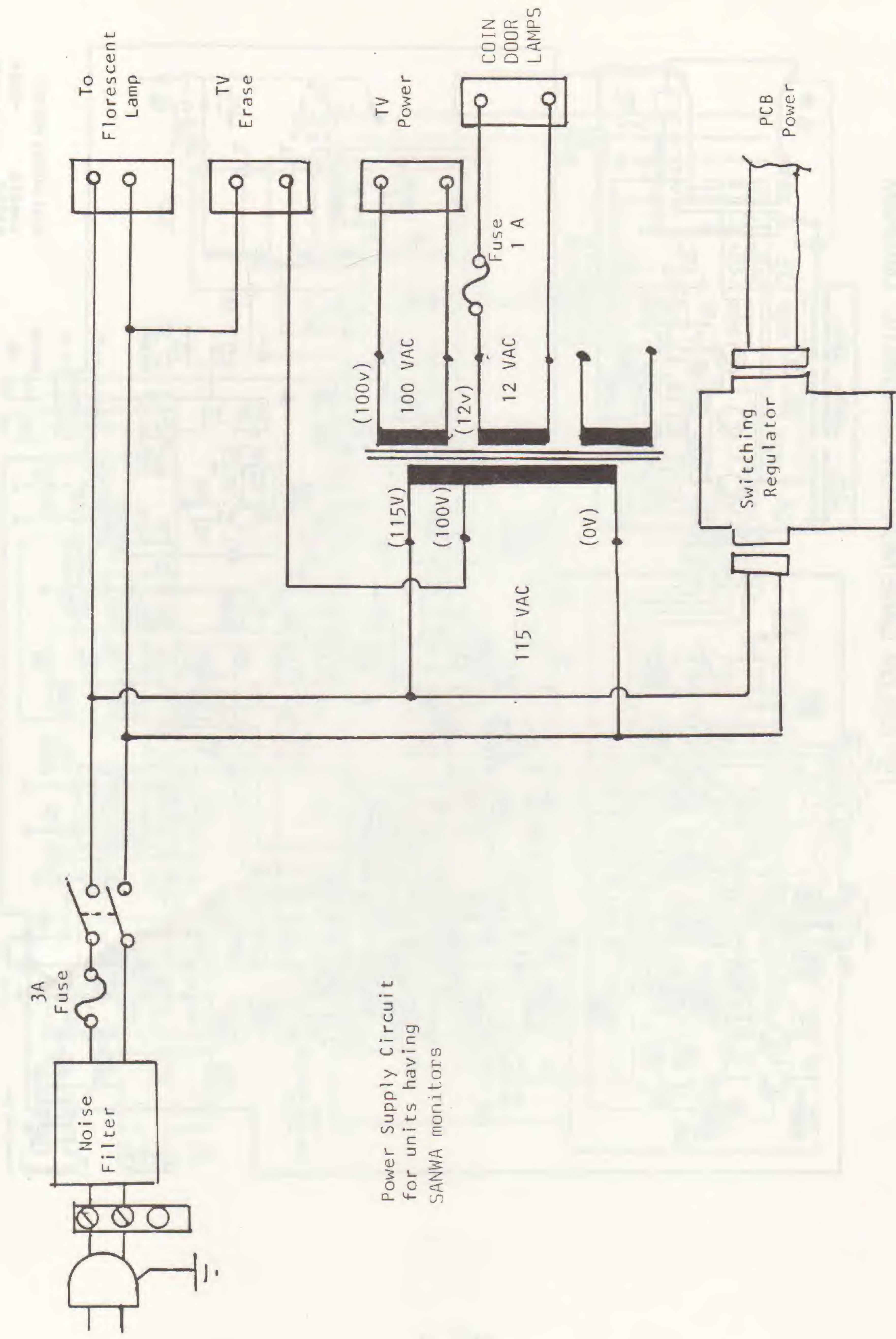


POWER SUPPLY Model KGD23SIK-II

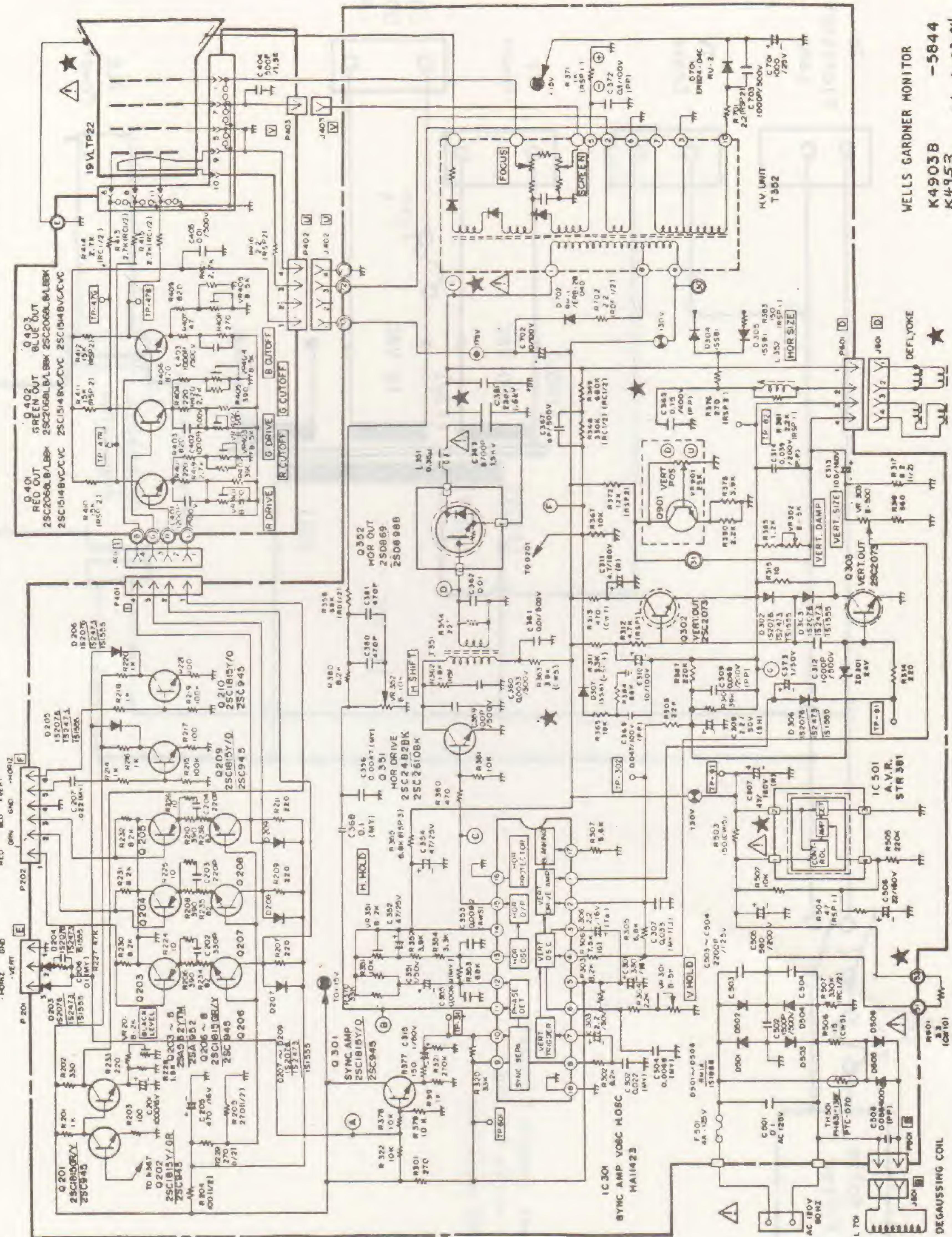
Item	Parts Nos	Description	Specification	Q'ty	Manufacturer
1.	F4o	Fuse	GHS 5	1	Nagasawa
2.	T4o	Transformer		1	Shindengen
3.	L42	Common Mode Choke	UF327S 602YIRO	1	TDK
4.	Q4o	Transistor	2SC3306	1	Toshiba
5.	RF4o	Bridge Rectifier	S3WB 4o	1	Shindengen
6.	D4o	Diode	V19C	1	Hitachi
7.	D46	Diode	V19G	1	Hitachi
8.	DZ4o	Zener Diode	HZ16-1	1	Hitachi
9.	IC01	HB IC	RHD01-2	1	Nichi-con
10.	PC01	Photo Coupler	PS 2018	1	Nichiden(NEC)
11.	C4o, 41	Seramic Capacitor	DE7090E 102KVA1 125V 1,000pf	2	Murata
12.	C47	Seramic Capacitor	- ditto -	1	Murata
13.	C8o	Seramic Capacitor	DE0707B 681K 2KV DC 680pF	1	Murata
14.	C42	Film Capacitor			
15.	C43	Film Capacitor	QXM2G 104KT 400V 0.1μf	1	Nichi-con
16.	C46	Film Capacitor	ECQ-E2 104KS 200V 0.1μf	1	Matsushita
17.	C48	Film Capacitor	ECQ-E6 473KZ 400V 0.047μf	1	Matsushita
18.	C5o	Electrode Capacitor	LJA2D471 THSCBV 200V 470μf	1	Nichi-con
19.	R37, 4o	Resistor	ERG-1SJ 393H	2	Matsushita
20.	R47, 46	Resistor	ERG-2SJ 223H	2	Matsushita
21.	R48, 49	Resistor	ERG-3SJ 560H	2	Matsushita
22.	R8o	Resistor	ERG-2SJ 330H	1	Matsushita
23.	R42	Metal Plate Resistor	NPC 70 0.22 ohm	1	Fukushima Futaba
24.	R53, 54	Coil Resistor	IINS 05N 1R0J	2	Micron
25.	R41	Carbon Resistor	1/4W 10K ohm	1	
26.	R5o	Carbon Resistor	1/4W 680 ohm	1	
27.	R51	Carbon Resistor	1/4W 12K ohm	1	
28.	R52	Carbon Resistor			

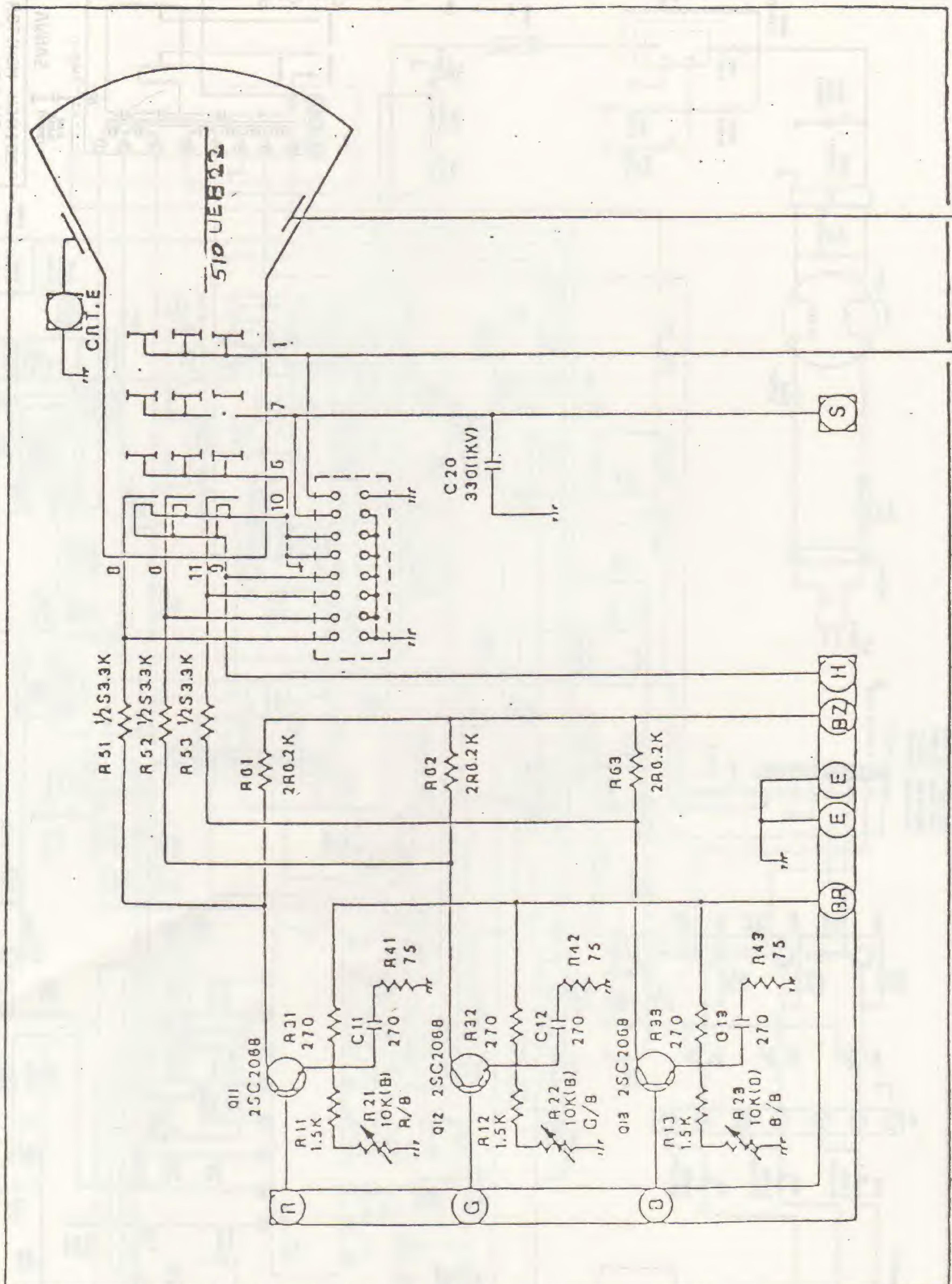
Item	Parts Nos	Description	Specification	Q'ty	Manufacturer
29.	L01	Choke	RD1113A 3J 3uH 10A	1	Hokkoh
30.	L03	Choke	RD310A 3F 3uH 5A	1	Hokkoh
31.	Q02	Transistor	2SD1022 or 2SD1308	1	Shindengen
32.	D01	Diode	ESAC 83-004	1	Fuji Denki
33.	D02	Diode	5CH2M or ESAC25-020	1	Fuji Denki or NEC
34.	D03	Diode	- ditto -	1	Fuji Denki
35.	DZ02	Zener Diode	HZ 6B-2	1	Hitachi
36.	DZ03	Zener Diode	HZ 12B-1L	1	Hitachi
37.	THY01	Thyristor	5PIN or SF5B41	1	NEC or Toshiba
38.	IC02	I.C.	TL431 CLP	1	T.I.
39.	C01, 02	Capacitor	SXA 16VB 2200	2	Nichi-Chemi
40.	C03, 05	Capacitor	CEUSM 1V 47 μ f 35V 47 μ pf	2	Nichi-con
41.	C04	Capacitor	CEUSM 1E 331 25V 33 μ pf	1	Nichi-con
42.	C07, 06	Capacitor	CEUSM 1E 331 25V 33 μ pf	2	Nichi-con
43.	C08	Capacitor	CEUSM 1H 010	1	Nichi-con
44.	C09	Capacitor	CEUSM 1V 4R7 35V 4.7 μ f	1	Nichi-con
45.	C11	Film Capacitor	TDY1H/2A 104K 50V 0.1 μ f	1	Nichi-con
46.	R01, 13	Resistor	ERG 3SJ 680H	2	Matsushita 3W 68 Ω
47.	R08	Resistor	ERG3SJ 271H	1	Matsushita 3W 270 Ω
48.	R09	Resistor	ERG 2SJ R68 2W 0.68 ohm	1	Matsushita
49.	R10	Resistor	ERG 1SJ 271 1W 270 ohm	1	Matsushita
50.	RV01	Volume	EVM38GA 00B52 500 ohm	1	Matsushita
51.	R03	Carbon Resistor	1/4W 68 ohm	1	
52.	R04, 11	Carbon Resistor	1/4W 560 ohm	2	
53.	R05	Carbon Resistor	1/4W 390 ohm	1	
54.	R06	Carbon Resistor	1/4W 15 ohm	1	
55.	R02				
56.		P.C. Board		1	
57.	TB1	Terminal Strip		1	
58.		Terminals	Faston	7	

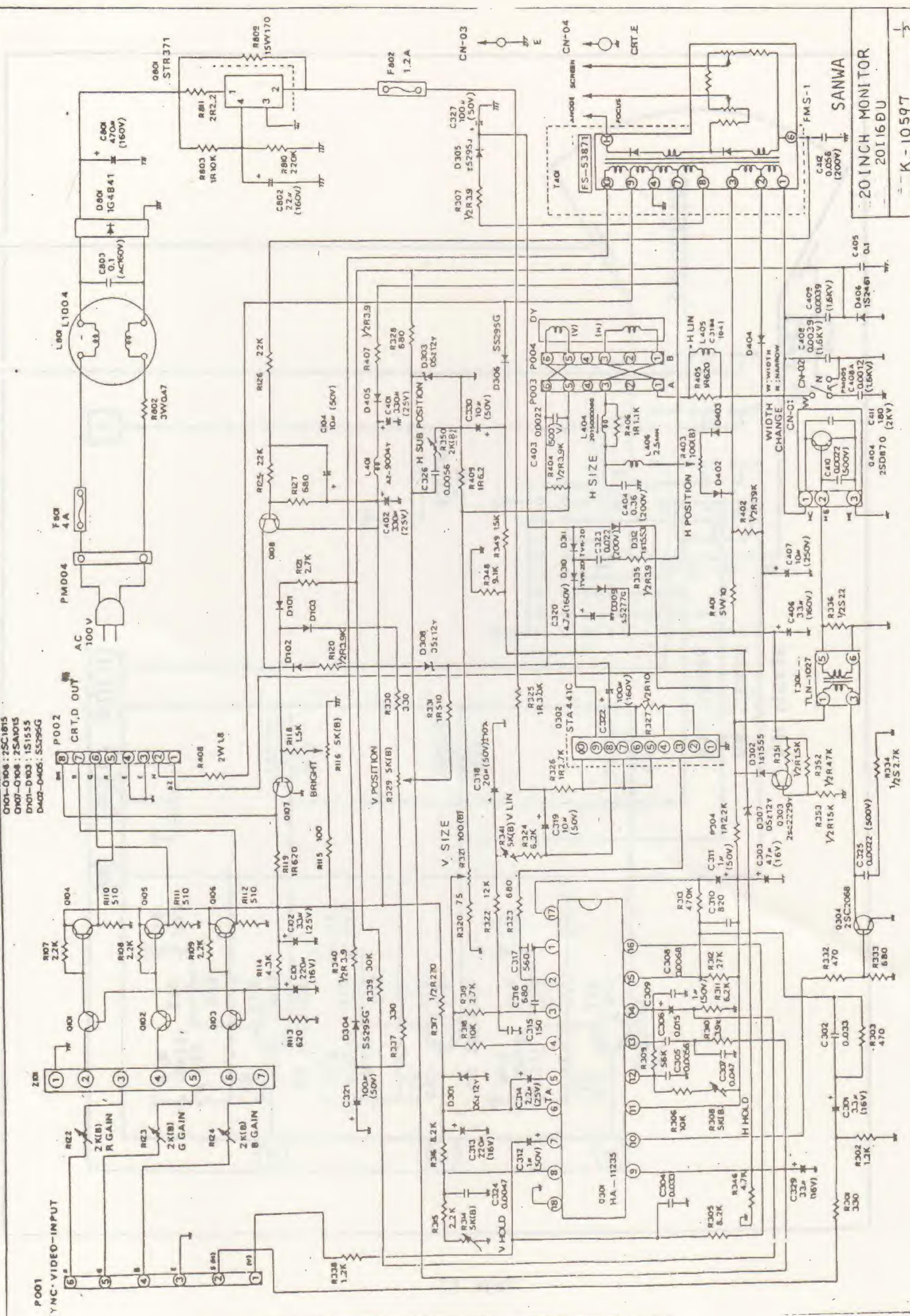
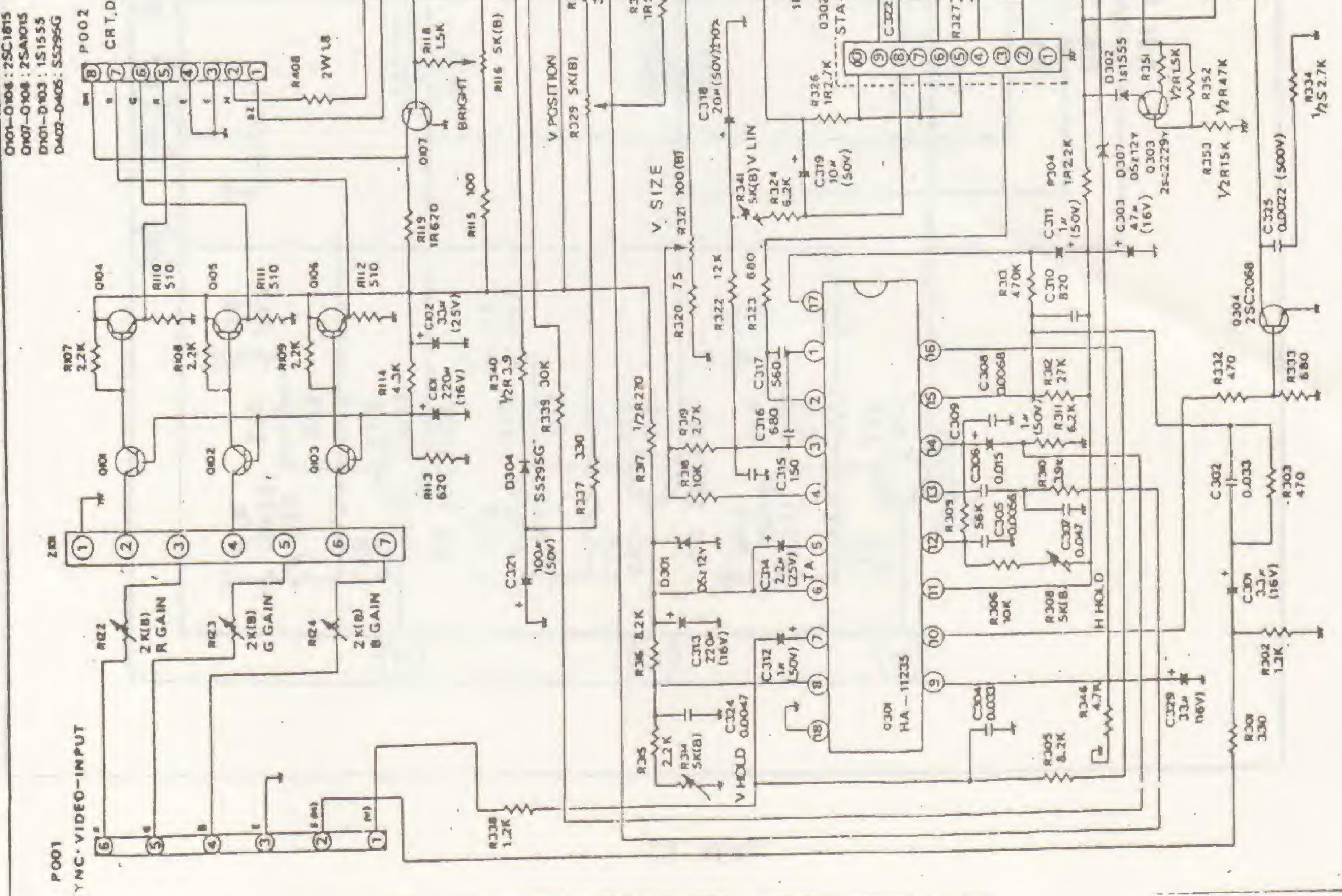


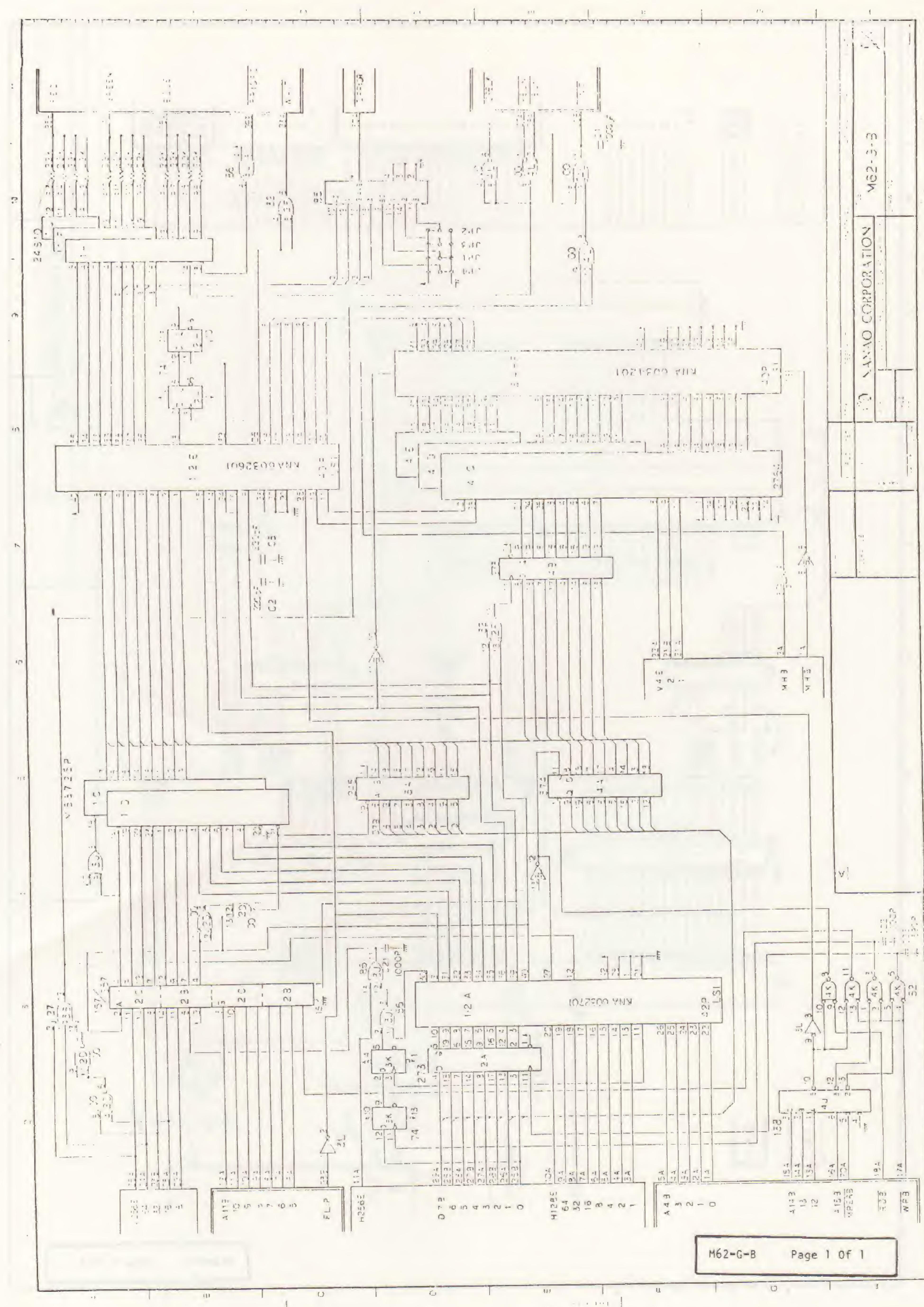


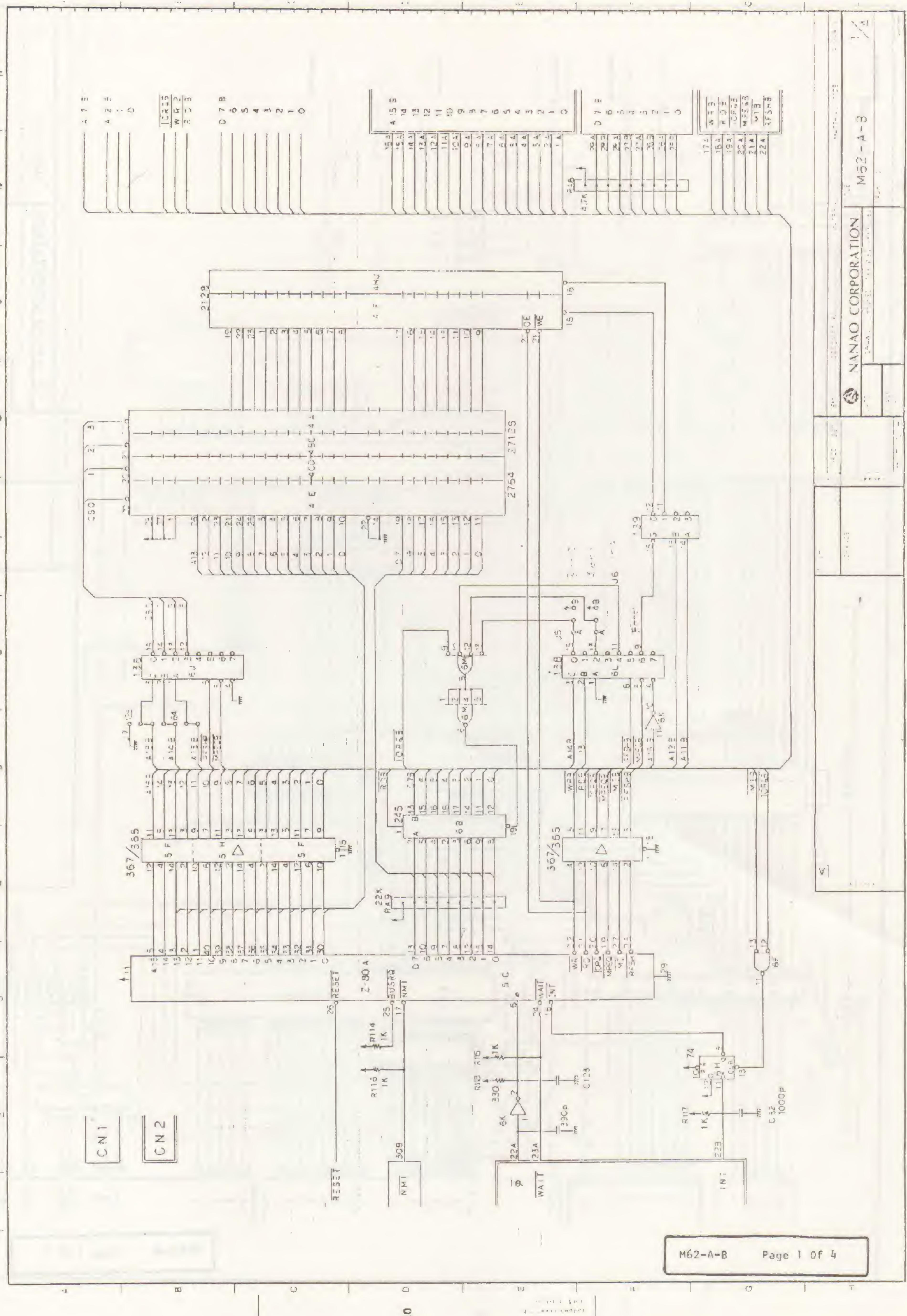
19" COLOR GAME MONITOR SCHEMATIC DIAGRAM

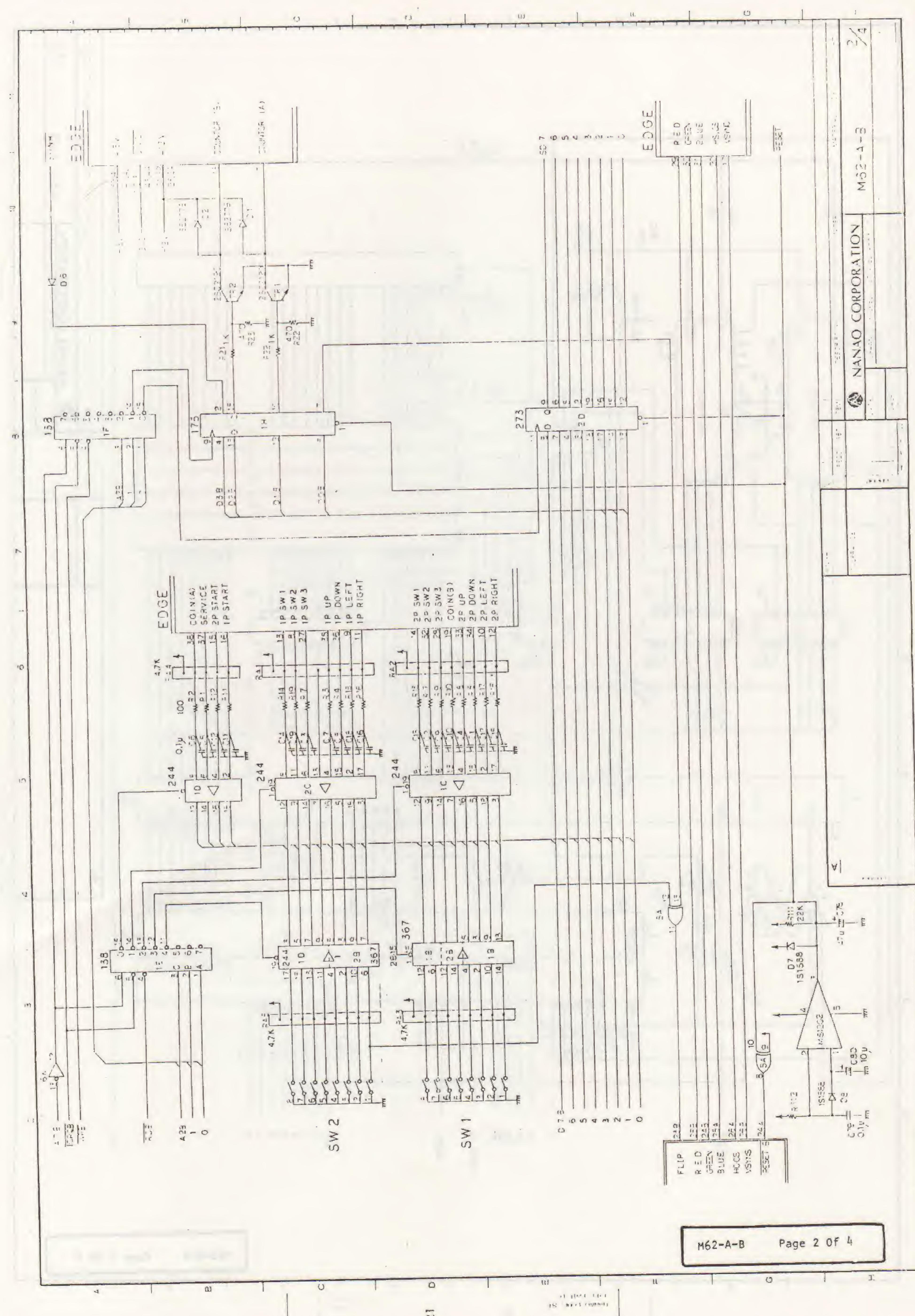


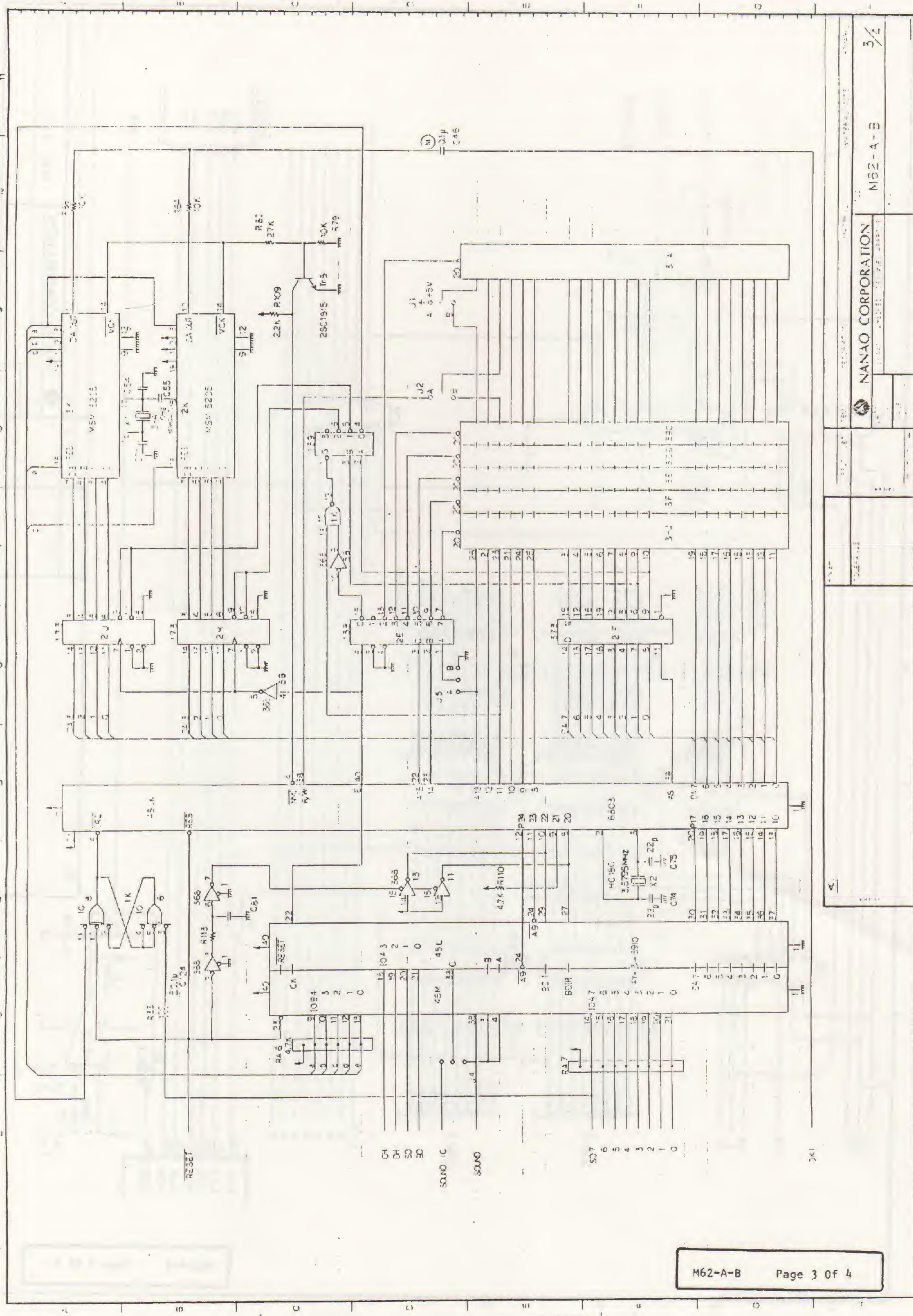


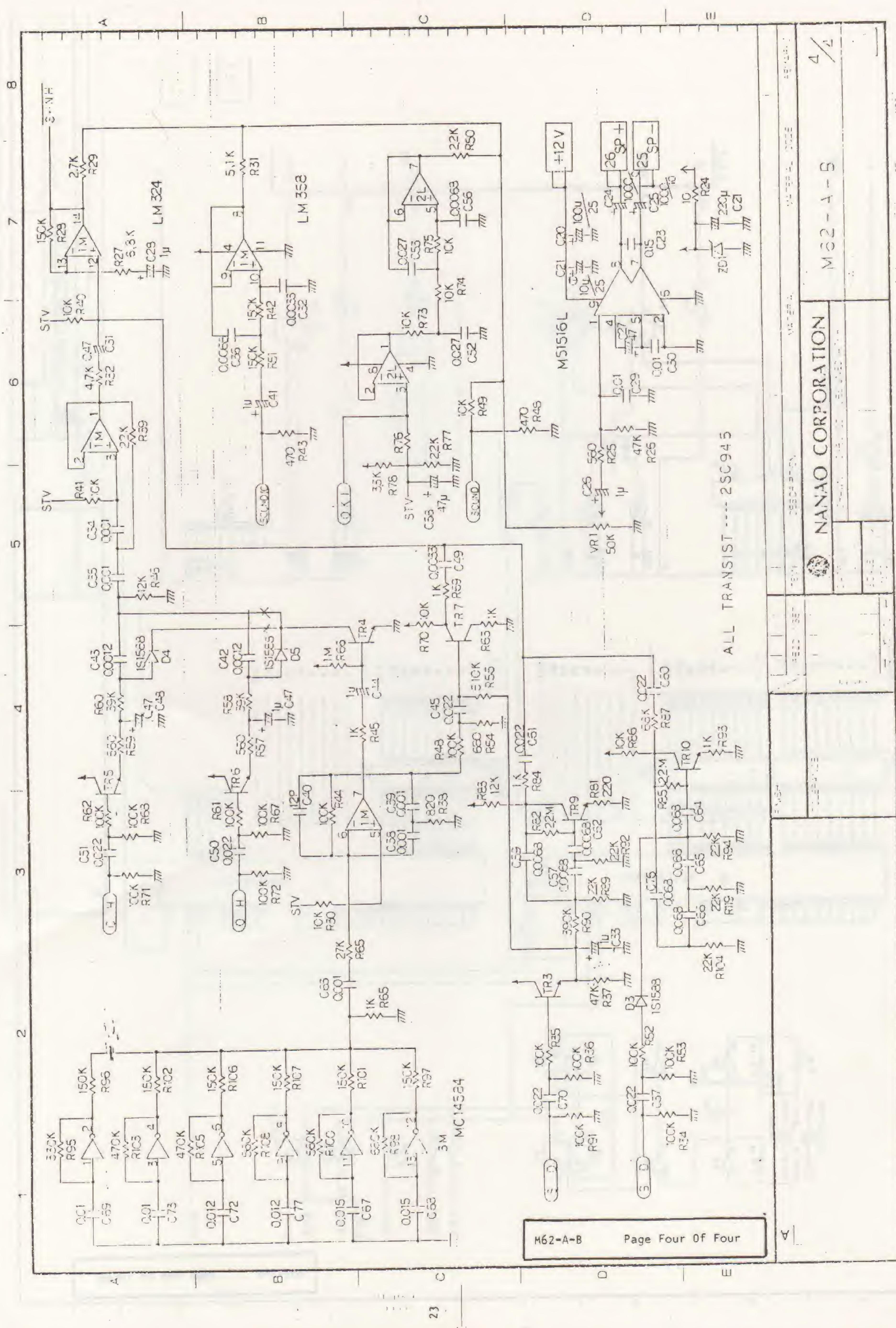




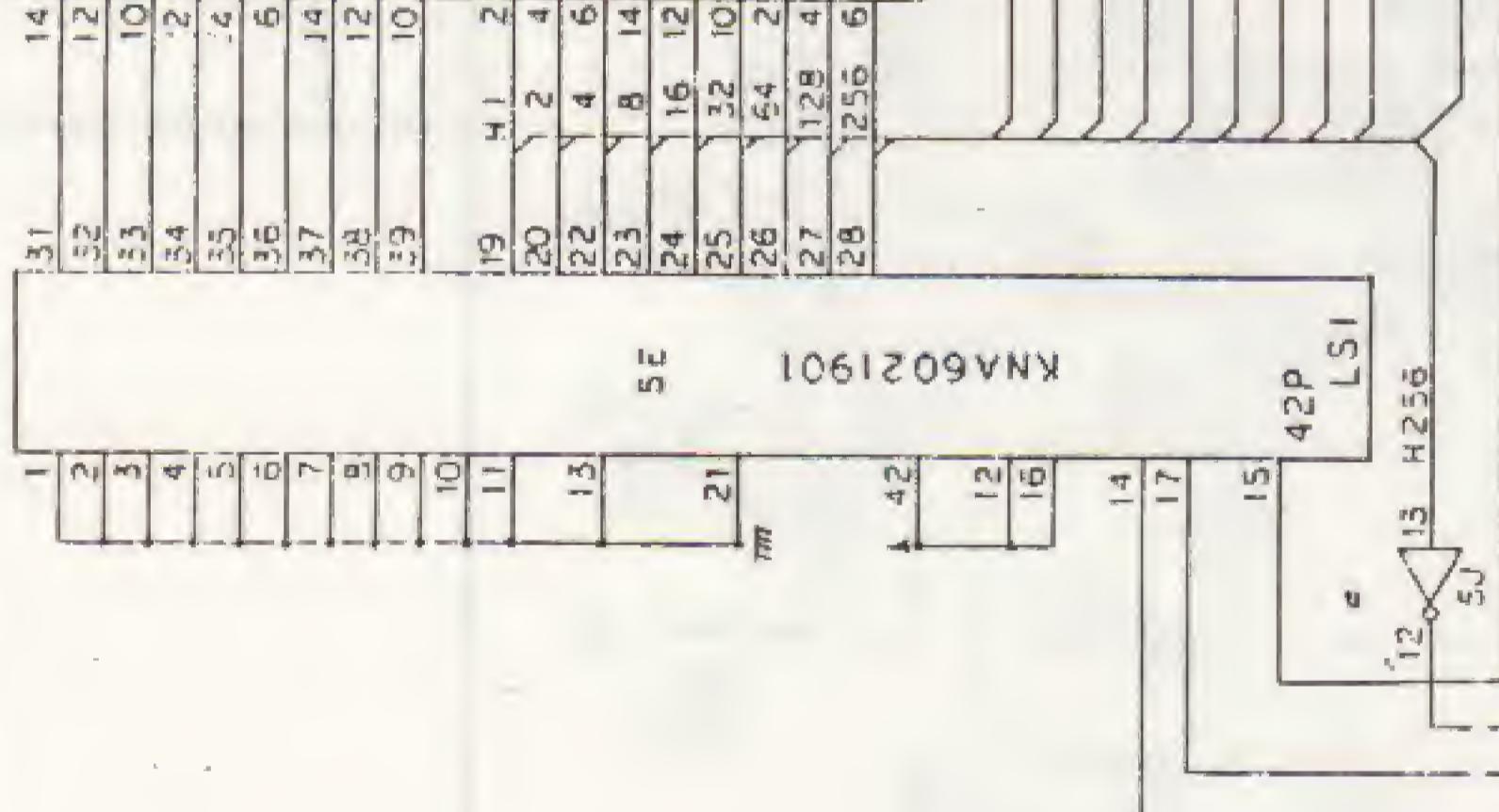


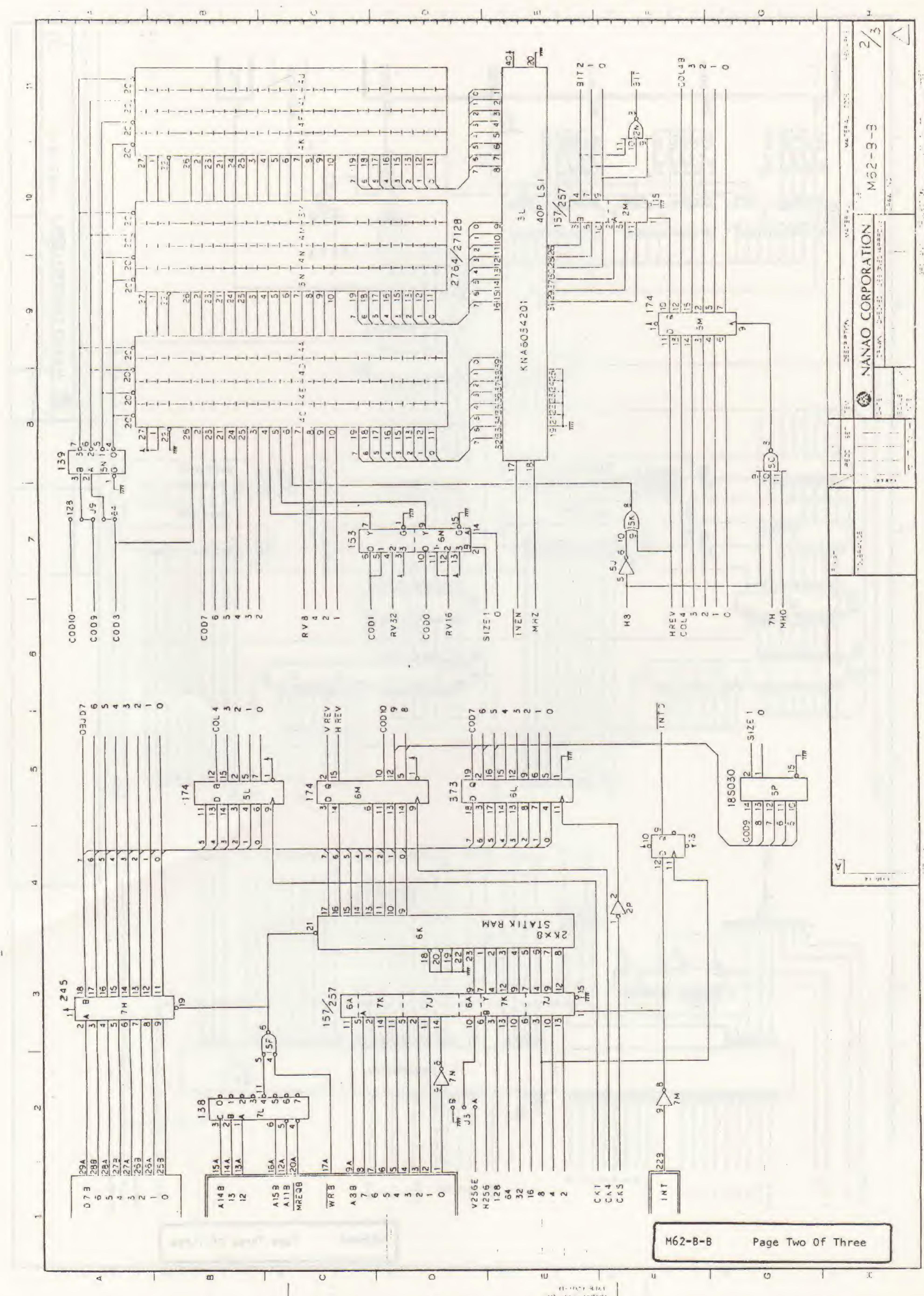


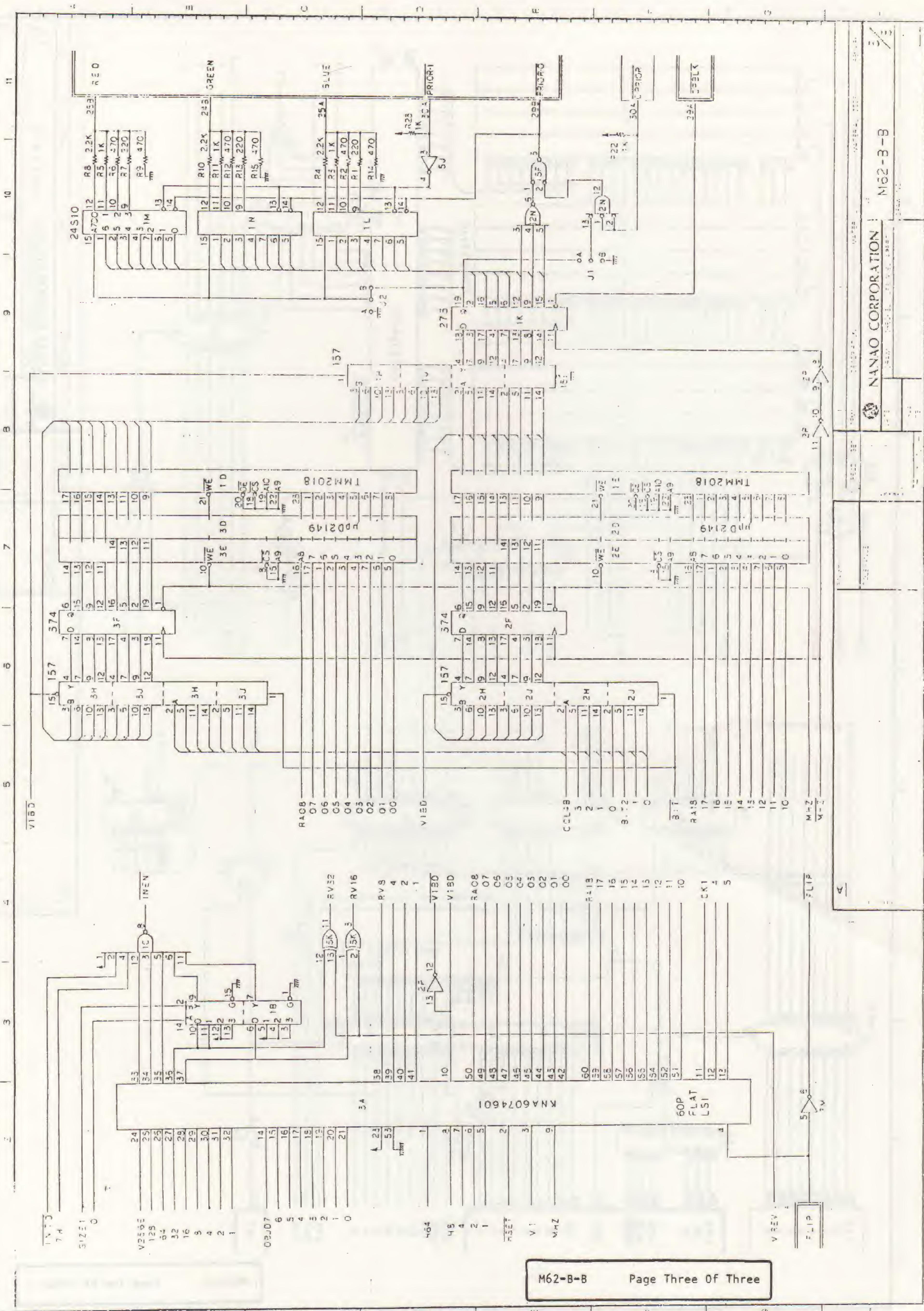




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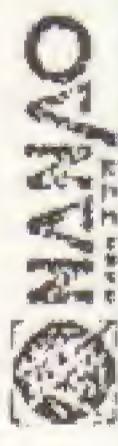








Symbol No.	M62-G	Parts List	No.
DESCRIPTION			DATE
DISCRIPTION			
2B	TTL-IC	74LS157W	
2C	"	"	
2D	"	74LS00N	
2F	"	74LS32N	
2H	"	74LS74AN	
2J	"	74LS85N	
3A	"	74LS245N	
3B	"	74LS27N	
3J	"	74LS86N	
3K	"	74LS74AM	
3L	"	74LS04N	
3M	"	74LS374N	
3N	"	74LS273N	
3P	"	74LS138N	
4A	"	74LS32N	
4B	"	74LS00N	
4C	"	74LS273N	
4D	"	74LS85N	
4E	"	74LS00N	
4F	"	74LS273N	
4G	"	74LS00N	
4H	"	74LS273N	
4I	"	74LS00N	
4J	"	74LS273N	
4K	"	74LS00N	
4L	"	74LS273N	
4M	"	74LS00N	
4N	"	74LS273N	
4O	"	74LS00N	
4P	"	74LS273N	
4Q	"	74LS00N	
4R	"	74LS273N	
4S	"	74LS00N	
4T	"	74LS273N	
4U	"	74LS00N	
4V	"	74LS273N	
4W	"	74LS00N	
4X	"	74LS273N	
4Y	"	74LS00N	
4Z	"	74LS273N	
5A	"	74LS00N	
5B	"	74LS273N	
5C	"	74LS00N	
5D	"	74LS273N	
5E	"	74LS00N	
5F	"	74LS273N	
5G	"	74LS00N	
5H	"	74LS273N	
5I	"	74LS00N	
5J	"	74LS273N	
5K	"	74LS00N	
5L	"	74LS273N	
5M	"	74LS00N	
5N	"	74LS273N	
5O	"	74LS00N	
5P	"	74LS273N	
5Q	"	74LS00N	
5R	"	74LS273N	
5S	"	74LS00N	
5T	"	74LS273N	
5U	"	74LS00N	
5V	"	74LS273N	
5W	"	74LS00N	
5X	"	74LS273N	
5Y	"	74LS00N	
5Z	"	74LS273N	
6A	"	74LS00N	
6B	"	74LS273N	
6C	"	74LS00N	
6D	"	74LS273N	
6E	"	74LS00N	
6F	"	74LS273N	
6G	"	74LS00N	
6H	"	74LS273N	
6I	"	74LS00N	
6J	"	74LS273N	
6K	"	74LS00N	
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6M	"	74LS00N	
6N	"	74LS273N	
6O	"	74LS00N	
6P	"	74LS273N	
6Q	"	74LS00N	
6R	"	74LS273N	
6S	"	74LS00N	
6T	"	74LS273N	
6U	"	74LS00N	
6V	"	74LS273N	
6W	"	74LS00N	
6X	"	74LS273N	
6Y	"	74LS00N	
6Z	"	74LS273N	
7A	"	74LS00N	
7B	"	74LS273N	
7C	"	74LS00N	
7D	"	74LS273N	
7E	"	74LS00N	
7F	"	74LS273N	
7G	"	74LS00N	
7H	"	74LS273N	
7I	"	74LS00N	
7J	"	74LS273N	
7K	"	74LS00N	
7L	"	74LS273N	
7M	"	74LS00N	
7N	"	74LS273N	
7O	"	74LS00N	
7P	"	74LS273N	
7Q	"	74LS00N	
7R	"	74LS273N	
7S	"	74LS00N	
7T	"	74LS273N	
7U	"	74LS00N	
7V	"	74LS273N	
7W	"	74LS00N	
7X	"	74LS273N	
7Y	"	74LS00N	
7Z	"	74LS273N	
8A	"	74LS00N	
8B	"	74LS273N	
8C	"	74LS00N	
8D	"	74LS273N	
8E	"	74LS00N	
8F	"	74LS273N	
8G	"	74LS00N	
8H	"	74LS273N	
8I	"	74LS00N	
8J	"	74LS273N	
8K	"	74LS00N	
8L	"	74LS273N	
8M	"	74LS00N	
8N	"	74LS273N	
8O	"	74LS00N	
8P	"	74LS273N	
8Q	"	74LS00N	
8R	"	74LS273N	
8S	"	74LS00N	
8T	"	74LS273N	
8U	"	74LS00N	
8V	"	74LS273N	
8W	"	74LS00N	
8X	"	74LS273N	
8Y	"	74LS00N	
8Z	"	74LS273N	
9A	"	74LS00N	
9B	"	74LS273N	
9C	"	74LS00N	
9D	"	74LS273N	
9E	"	74LS00N	
9F	"	74LS273N	
9G	"	74LS00N	
9H	"	74LS273N	
9I	"	74LS00N	
9J	"	74LS273N	
9K	"	74LS00N	
9L	"	74LS273N	
9M	"	74LS00N	
9N	"	74LS273N	
9O	"	74LS00N	
9P	"	74LS273N	
9Q	"	74LS00N	
9R	"	74LS273N	
9S	"	74LS00N	
9T	"	74LS273N	
9U	"	74LS00N	
9V	"	74LS273N	
9W	"	74LS00N	
9X	"	74LS273N	
9Y	"	74LS00N	
9Z	"	74LS273N	
10A	"	74LS00N	
10B	"	74LS273N	
10C	"	74LS00N	
10D	"	74LS273N	
10E	"	74LS00N	
10F	"	74LS273N	
10G	"	74LS00N	
10H	"	74LS273N	
10I	"	74LS00N	
10J	"	74LS273N	
10K	"	74LS00N	
10L	"	74LS273N	
10M	"	74LS00N	
10N	"	74LS273N	
10O	"	74LS00N	
10P	"	74LS273N	
10Q	"	74LS00N	
10R	"	74LS273N	
10S	"	74LS00N	
10T	"	74LS273N	
10U	"	74LS00N	
10V	"	74LS273N	
10W	"	74LS00N	
10X	"	74LS273N	
10Y	"	74LS00N	
10Z	"	74LS273N	
11A	"	74LS00N	
11B	"	74LS273N	
11C	"	74LS00N	
11D	"	74LS273N	
11E	"	74LS00N	
11F	"	74LS273N	
11G	"	74LS00N	
11H	"	74LS273N	
11I	"	74LS00N	
11J	"	74LS273N	
11K	"	74LS00N	
11L	"	74LS273N	
11M	"	74LS00N	
11N	"	74LS273N	
11O	"	74LS00N	
11P	"	74LS273N	
11Q	"	74LS00N	
11R	"	74LS273N	
11S	"	74LS00N	
11T	"	74LS273N	
11U	"	74LS00N	
11V	"	74LS273N	
11W	"	74LS00N	
11X	"	74LS273N	
11Y	"	74LS00N	
11Z	"	74LS273N	
12A	"	74LS00N	
12B	"	74LS273N	
12C	"	74LS00N	
12D	"	74LS273N	
12E	"	74LS00N	
12F	"	74LS273N	
12G	"	74LS00N	
12H	"	74LS273N	
12I	"	74LS00N	
12J	"	74LS273N	



NANAO

SYMBOL NO.	DESCRIPTION
CN1	CONNECTOR XG3A-5014
CN2	ASSY. CONNECTOR (OJ40418A3) (2)
1F	IC-SOCKET IC-02T-1603S4 (16P)
1H	" "
1J	" "
4C	IC-SOCKET IC-02T-2806S4 (28P)
4D	" "
4E	" "
28	" "
PCB	M62-G-A

NANAO CORP. ST
TYPE K404-SNANAO CORP. ST
TYPE K404-S

SYMBOL NO.	DESCRIPTION
C1	Ceramic B 1000 pF K 50V
C2	Ceramic SL 220 pF J 50V
C3	" SL 220 pF J 50V
C4	Ceramic BC 0.1 uf Z 12V or 16V
C5	" 0.1 uf Z 12V or 16V
C6	" 0.1 uf Z 12V or 16V
C7	" 0.1 uf Z 12V or 16V
C8	" 0.1 uf Z 12V or 16V
C9	" 0.1 uf Z 12V or 16V
C10	" 0.1 uf Z 12V or 16V
C11	" 0.1 uf Z 12V or 16V
C12	" 0.1 uf Z 12V or 16V
C13	" 0.1 uf Z 12V or 16V
C14	" 0.1 uf Z 12V or 16V
C15	" 0.1 uf Z 12V or 16V
C16	" 0.1 uf Z 12V or 16V
C17	" 0.1 uf Z 12V or 16V
C18	" 0.1 uf Z 12V or 16V
C19	" 0.1 uf Z 12V or 16V
C20	" 0.1 uf Z 12V or 16V
C21	Ceramic B 1000 pF K 50V
C22	" SL 390 pF J 50V
C23	" SL 390 pF J 50V

C2-2 Ceramic BC 0.1 uf Z 12V or 16V
or 潛電 F 0.1 uf Z 25V 3 連接端子△ 34-11-16 320
△ 24-11-2 250

1-11-2 G. 4 / 4

1-11-2 G. 4 / 4



SYMBOL NO.	DESCRIPTION	NO.
4Z	S-RAM	M58725P
4A	"	"
4K	CPU	6803
SD	"	Z80A/D730C-1
4L	SOUND-G	AY-3-8910
4M	"	"
2X	SOUND-SYNC	MSK5205
3X	"	"
1K	LINEAR-IC	LM324
2L	"	LM358
3M	COMPARATOR	M51202
1L	C-MOS-IC	MC4534
29	POWER-AMP	M51516L

TYPE CODE - S
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Parts List

NO.

DATE

SYMBOL NO.	DESCRIPTION	NO.
1B	TTL-IC	74LS367N
1C	"	74LS244N
1D	"	"
1E	"	74LS138N
1F	"	"
1H	"	74LS175N
1J	"	74LS139N
1K	"	74LS10N
2B	"	74LS367N
2C	"	74LS244N
2D	"	74LS273N
2E	"	74LS139N
2F	"	74LS5573N
2H	"	74LS173N
2J	"	"
5A	"	74LS386N
5B	"	74LS368N
5E	"	74LS255N / 74LS267N
5F	"	"
5H	"	"
6B	"	74LS245N
6D	"	74LS265N / 74LS367N
6F	"	74LS32N
6H	"	74LS67N
6J	"	74LS138N
6K	"	74LS304N
6L	"	74LS138N
6M	"	74LS20N

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SYMBOL NO.	DESCRIPTION
R34	Carbon 100K ohm J $\frac{1}{4}$ W 5% (UB)
R35	"
R36	"
R37	"
R38	"
R39	"
R40	"
R41	"
R42	"
R43	"
R44	"
R45	"
R46	"
R47	"
R48	"
R49	"
R50	"
R51	"
R52	"
R53	"
R54	"
R55	"
R56	"
R57	Carbon 560 ohm J $\frac{1}{4}$ W 5% (UB)
R58	"
R59	"
R60	"
R61	"
R62	"
R63	"
R64	"
R65	"
R66	"
R67	"
R68	"

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SYMBOL NO.	DESCRIPTION
RESISTORS	
R1	Carbon 100 ohm J $\frac{1}{4}$ W 5% (UB)
R2	"
R3	"
R4	"
R5	"
R6	"
R7	"
R8	"
R9	"
R10	"
R11	"
R12	"
R13	"
R14	"
R15	"
R16	"
R17	"
R18	"
R19	"
R20	"
R21	"
R22	"
R23	"
R24	"
R25	"
R26	"
R27	"
R28	"
R29	"
R30	"
R31	"
R32	"
R33	"

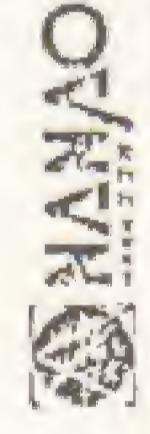


SYMBOL NO.	DESCRIPTION
R104	Carbon 22K ohm J $\frac{1}{4}$ W 5% (UB)
R105	" 470K ohm J $\frac{1}{4}$ W 5% (UB)
R106	" 150K ohm J $\frac{1}{4}$ W 5% (UB)
R107	" 150K ohm J $\frac{1}{4}$ W 5% (UB)
R108	" 560K ohm J $\frac{1}{4}$ W 5% (UB)
R109	" 2.2K ohm J $\frac{1}{4}$ W 5% (UB)
R110	" 4.7K ohm J $\frac{1}{4}$ W 5% (UB)
R111	" 22K ohm J $\frac{1}{4}$ W 5% (UB)
R112	" 1.5 ohm J $\frac{1}{4}$ W 5% (UB)
R113	" 100 ohm J $\frac{1}{4}$ W 5% (UB)
R114	" 1K ohm J $\frac{1}{4}$ W 5% (UB)
R115	" 1K ohm J $\frac{1}{4}$ W 5% (UB)
R116	" 1K ohm J $\frac{1}{4}$ W 5% (UB)
R117	" 1K ohm J $\frac{1}{4}$ W 5% (UB)
R118	" 330 ohm J $\frac{1}{4}$ W 5% (UB)
R119	" 22K ohm J $\frac{1}{4}$ W 5% (UB)
RA1	Block IHR-8-472JA
RA2	" IHR-8-472JA
RA3	" IHR-8-472JA
RA4	" IHR-8-472JA
RA5	" IHR-8-472JA
RA6	" IHR-8-472JA
RA7	" IHR-8-472JA
RA8	" IHR-8-472JA
RA9	" IHR-8-223JA
VZ1	Semi-Fixed VZ103XSL23-50K ohm

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SYMBOL NO.	DESCRIPTION
R69	Carbon 1K ohm J $\frac{1}{4}$ W 5% (UB)
R70	" 10K ohm J $\frac{1}{4}$ W 5% (UB)
R71	" 100K ohm J $\frac{1}{4}$ W 5% (UB)
R72	" 100K ohm J $\frac{1}{4}$ W 5% (UB)
R73	" 10K ohm J $\frac{1}{4}$ W 5% (UB)
R74	" 10K ohm J $\frac{1}{4}$ W 5% (UB)
R75	" 10K ohm J $\frac{1}{4}$ W 5% (UB)
R76	" 47K ohm J $\frac{1}{4}$ W 5% (UB)
R77	" 2.2K ohm J $\frac{1}{4}$ W 5% (UB)
R78	" 3.3K ohm J $\frac{1}{4}$ W 5% (UB)
R79	" 10K ohm J $\frac{1}{4}$ W 5% (UB)
R80	" 27K ohm J $\frac{1}{4}$ W 5% (UB)
R81	" 220 ohm J $\frac{1}{4}$ W 5% (UB)
R82	" 2.2M ohm J $\frac{1}{4}$ W 5% (UB)
R83	" 125 ohm J $\frac{1}{4}$ W 5% (UB)
R84	" 1K ohm J $\frac{1}{4}$ W 5% (UB)
R85	" 2.2M ohm J $\frac{1}{4}$ W 5% (UB)
R86	" 10K ohm J $\frac{1}{4}$ W 5% (UB)
R87	" 68K ohm J $\frac{1}{4}$ W 5% (UB)
R88	" 10K ohm J $\frac{1}{4}$ W 5% (UB)
R89	" 22K ohm J $\frac{1}{4}$ W 5% (UB)
R90	" 390K ohm J $\frac{1}{4}$ W 5% (UB)
R91	" 100K ohm J $\frac{1}{4}$ W 5% (UB)
R92	" 22K ohm J $\frac{1}{4}$ W 5% (UB)
R93	" 1K ohm J $\frac{1}{4}$ W 5% (UB)
R94	" 150K ohm J $\frac{1}{4}$ W 5% (UB)
R95	" 150K ohm J $\frac{1}{4}$ W 5% (UB)
R96	" 680K ohm J $\frac{1}{4}$ W 5% (UB)
R97	" 1K ohm J $\frac{1}{4}$ W 5% (UB)
R98	" 560K ohm J $\frac{1}{4}$ W 5% (UB)
R99	" 150K ohm J $\frac{1}{4}$ W 5% (UB)
R100	" 150K ohm J $\frac{1}{4}$ W 5% (UB)
R101	" 470K ohm J $\frac{1}{4}$ W 5% (UB)
R102	" 150K ohm J $\frac{1}{4}$ W 5% (UB)
R103	" 470K ohm J $\frac{1}{4}$ W 5% (UB)



OAKWOOD

SYMBOL NO.	DESCRIPTION	TYPE / MFR. S.
C34	Polyester	0.001 uF J 50V
C35	"	0.001 uF J 50V
C36	"	0.0068 uF J 50V
C37	"	0.022 uF J 50V
C38	"	0.001 uF J 50V
C39	"	0.001 uF J 50V
C40	Ceramic	12 pF J 50V
C41	Electrolytic	1 uF M 50V
C42	Polyester	0.0012 uF J 50V
C43	"	0.0012 uF J 50V
C44	Electrolytic	1 uF M 50V
C45	Polyester	0.022 uF J 50V
C46	"	0.1 uF J 50V
C47	Electrolytic	1 uF M 50V
C48	"	0.47 uF M 50V
C49	Polyester	0.0033 uF J 50V
C50	"	0.022 uF J 50V
C51	"	0.022 uF J 50V
C52	"	0.027 uF J 50V
C53	"	0.027 uF J 50V
C54	Ceramic	220 pF J 50V
C55	"	100 pF J 50V
C56	Polyester	0.0068 uF J 50V
C57	"	0.0068 uF J 50V
C58	Electrolytic	47 uF M 16V
C59	Polyester	0.0068 uF J 50V
C60	"	0.022 uF J 50V
C61	"	0.022 uF J 50V
C62	"	0.0068 uF J 50V
C63	"	0.001 uF J 50V
C64	"	0.068 uF J 50V
C65	"	0.068 uF J 50V
C66	"	0.068 uF J 50V
C67	"	0.015 uF J 50V
C68	"	0.015 uF J 50V

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SYMBOL NO.	DESCRIPTION	TYPE / MFR. S.
CAPACITORS		
C1	Ceramic BC	0.1 uF Z 12V or 16V
C2	"	0.1 uF Z 12V or 16V
C3	"	0.1 uF Z 12V or 16V
C4	"	0.1 uF Z 12V or 16V
C5	"	0.1 uF Z 12V or 16V
C6	"	0.1 uF Z 12V or 16V
C7	"	0.1 uF Z 12V or 16V
C8	"	0.1 uF Z 12V or 16V
C9	"	0.1 uF Z 12V or 16V
C10	"	0.1 uF Z 12V or 16V
C11	"	0.1 uF Z 12V or 16V
C12	"	0.1 uF Z 12V or 16V
C13	"	0.1 uF Z 12V or 16V
C14	"	0.1 uF Z 12V or 16V
C15	"	0.1 uF Z 12V or 16V
C16	"	0.1 uF Z 12V or 16V
C17	"	0.1 uF Z 12V or 16V
C18	"	0.1 uF Z 12V or 16V
C19	"	0.1 uF Z 12V or 16V
C20	"	0.1 uF M 25V
C21	Tantal	10 uF M 25V
C22	Electrolytic	220 uF M 16V
C23	Polyester	0.15 uF J 50V
C24	Electrolytic	1000 uF M 10V
C25	"	1000 uF M 10V
C26	"	1 uF M 50V
C27	"	47 uF M 16V
C28	"	1 uF M 50V
C29	"	0.01 uF J 50V
C30	"	0.001 uF J 50V
C31	"	0.47 uF M 50V
C32	"	0.0033 uF J 50V
C33	"	1 uF M 50V

IS - DOP - RYU
NAMCO CORP. S.

TYPE / MFR. S.
NAMCO CORP. S.

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SYMBOL NO.	DESCRIPTION	0.1	uF Z 12V or 16V	0
C104	Ceramic BC	0.1	uF Z 12V or 16V	0
C105	"	0.1	uF Z 12V or 16V	0
C106	"	0.1	uF Z 12V or 16V	0
C107	"	0.1	uF Z 12V or 16V	0
C108	"	0.1	uF Z 12V or 16V	0
C109	"	0.1	uF Z 12V or 16V	0
C110	"	0.1	uF Z 12V or 16V	0
C111	"	0.1	uF Z 12V or 16V	0
C112	"	0.1	uF Z 12V or 16V	0
C113	"	0.1	uF Z 12V or 16V	0
C114	"	0.1	uF Z 12V or 16V	0
C115	"	0.1	uF Z 12V or 16V	0
C116	"	0.1	uF Z 12V or 16V	0
C117	"	0.1	uF Z 12V or 16V	0
C118	"	0.1	uF Z 12V or 16V	0
C119	"	0.1	uF Z 12V or 16V	0
C120	"	0.1	uF Z 12V or 16V	0
C121	"	0.1	uF Z 12V or 16V	0
C122	"	0.1	uF Z 12V or 16V	0
C123	Ceramic	0.01	uF Z 50V	0
C124	Ceramic BC	0.1	uF Z 12V or 16V	0
	Ceramic	390	pF J 50V	-

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NAME OF ST.

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1000 2000 3000 4000 5000



15. $\text{S} = \text{U}(1) \times \text{U}(1)$

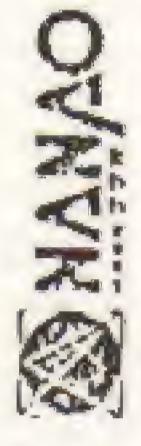
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SYMBOL NO.	DESCRIPTION
X1	CRYSTAL " 384 KHz
X2	" 3.579545 MHz
CN1	CONNECTOR " XG3A-6014
CN2	" XG3M-6001 (2)
SOCKET	XG3T-6004 (2)
STRAIN RELIEF	"
J1	SHORT-BASE SHORT-HEAD IMSA-9202B-1-3
J2	SHORT-BASE SHORT-HEAD IMSA-9202B-1-3
J3	SHORT-BASE SHORT-HEAD IMSA-9202B-1-3
J4	SHORT-BASE SHORT-HEAD IMSA-9202B-1-3
J5	HEAT-SINK
J6	TAP-SCREW-2-P-BIND 3x8 (2)
J7	"
	5D00609 (DRAW NO.)
1A	DIP-SW
2A	"
PCB	M62-A-B

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SYMBOL NO.	DESCRIPTION
3A	IC-SOCKET " IC-32T-2306S4 (2SP) "
3B	"
3D	"
3E	"
3F	"
3H	"
4A	"
4B	"
4D	"
4Z	"
4X	"
4L	"
4M	"
5D	"
	C-641268-3 (4OP)

NANAO QM-Q S1
TYPE 7404-5





TYPE 1004-5



SYMBOL NO.	DESCRIPTION
<u>CAPACITORS</u>	
C1	Ceramic BC
C2	" 0.1 uF Z 12V or 16V
C3	" 0.1 uF Z 12V or 16V
C4	" 0.1 uF Z 12V or 16V
C5	" 0.1 uF Z 12V or 16V
C6	" 0.1 uF Z 12V or 16V
C7	" 0.1 uF Z 12V or 16V
C8	" 0.1 uF Z 12V or 16V
C9	" 0.1 uF Z 12V or 16V
C10	" 0.1 uF Z 12V or 16V
C11	" 0.1 uF Z 12V or 16V
C12	" 0.1 uF Z 12V or 16V
C13	" 0.1 uF Z 12V or 16V
C14	" 0.1 uF Z 12V or 16V
C15	" 0.1 uF Z 12V or 16V
C16	" 0.1 uF Z 12V or 16V
C17	" 0.1 uF Z 12V or 16V
C18	" 0.1 uF Z 12V or 16V
C19	" 0.1 uF Z 12V or 16V
C20	" 0.1 uF Z 12V or 16V
C21	" 0.1 uF Z 12V or 16V
C22	" 0.1 uF Z 12V or 16V
C23	"
C24	"
C25	"
C26	Ceramic
C27	" 22 pF J 50V
C28	Ceramic BC
C29	" 0.1 uF Z 12V or 16V
C30	" 0.1 uF Z 12V or 16V
C31	" 0.1 uF Z 12V or 16V
C32	" 0.1 uF Z 12V or 16V
C33	" 0.1 uF Z 12V or 16V
C34	" 0.1 uF Z 12V or 16V

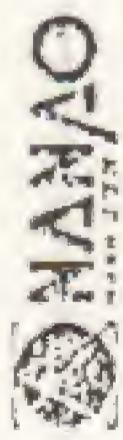
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1G 1000 Oct-1961

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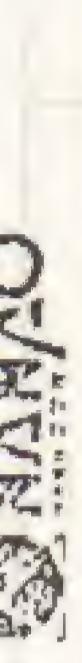
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SYMBOL NO.	DESCRIPTION
J2	SHORT-BASE TMSA-92023-1-3
J6	SHORT-HEAD TMSA-9202-H
1L	IC-SOCKET TC-02P-1603S4 (16P)
1M	"
1N	"
3M	"
3N	"
4A	"
4C	"
4D	"
4E	"
4F	"
4J	"
4K	"
4L	"
4M	"
4N	"
6P	"
PCB	

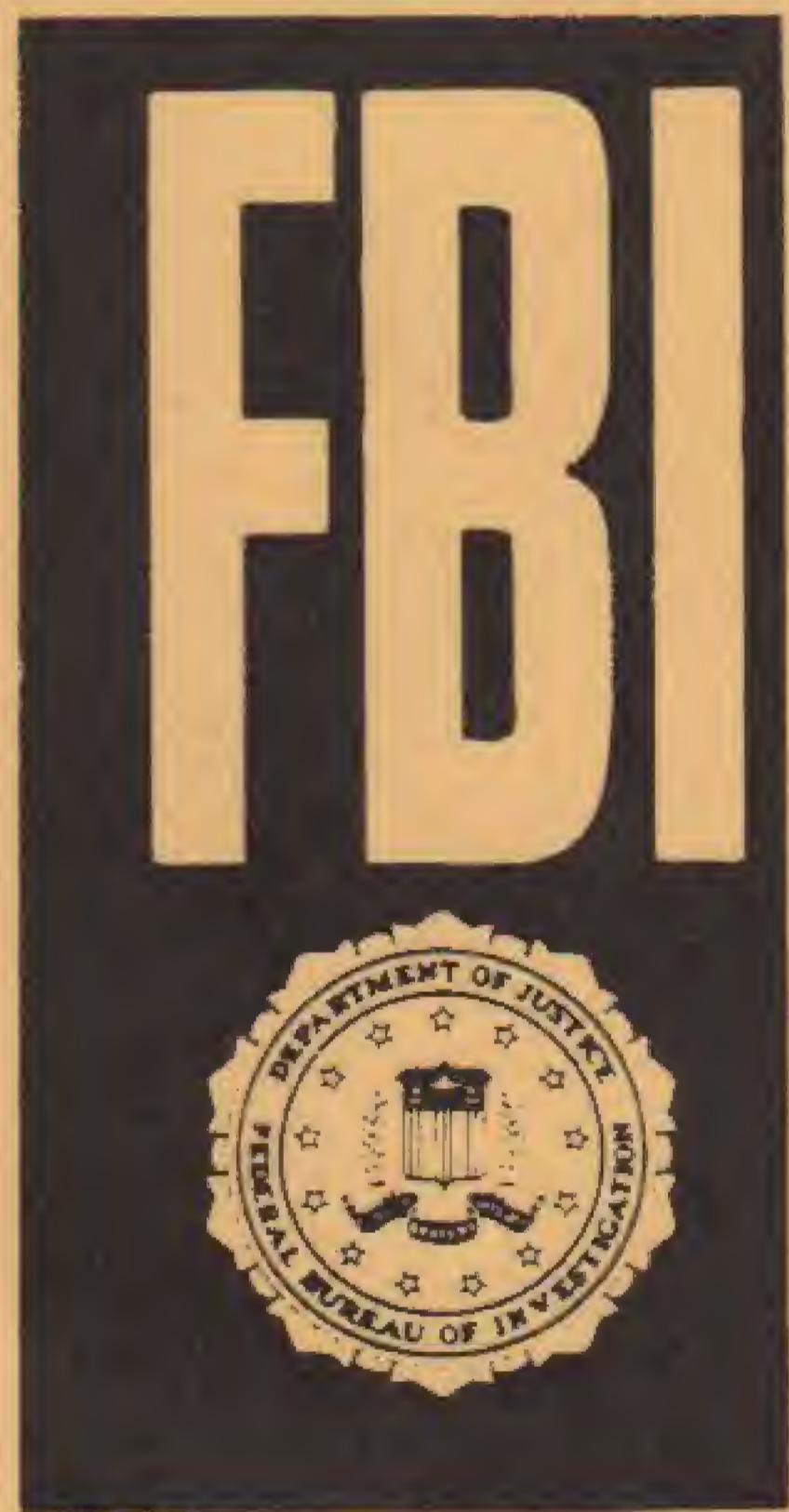


SYMBOL NO.	DESCRIPTION
C35	Ceramic 3C " " 12V or 16V O
C36	" " 12V or 16V O
C37	" " 12V or 16V O
C38	" " 12V or 16V O
Ceramic " " 35 pF J 50V	
X1	CRYSTAL " 24 MHZ
X2	" 13.432 MHZ
15	5-PIN PLAT TMSA-9202-H
CN1 CN2	
CONNECTOR " FC6002MA3 and 20	
CN3 CN4	
CONNECTOR " FC6002MA3 and 20	
J1	SHORT-BASE TMSA-9202-H
J2	SHORT-BASE TMSA-9202-H
J3	SHORT-HEAD TMSA-9202-H
J4	SHORT-BASE TMSA-9202-H
J5	SHORT-HEAD TMSA-9202-H
J6	SHORT-BASE TMSA-9202-H
J7	SHORT-HEAD TMSA-9202-H
J8 J9	

5-PIN PLAT
TMSA-9202-H

5-PIN PLAT
TMSA-9202-H

5-PIN PLAT
TMSA-9202-H



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